dutch security innovations

Smart Thermal Product Guide

Perimeter Protection

Fire Prevention

Temperature Measuring

Version- 04-24

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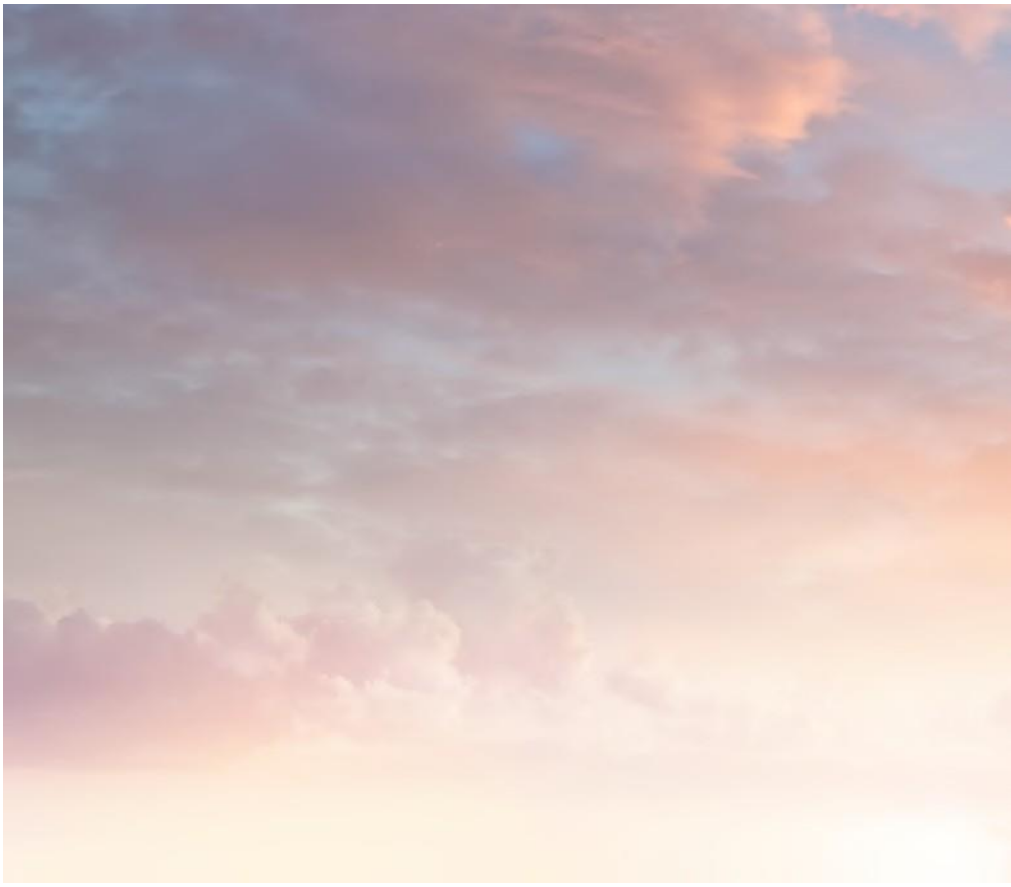


DSI/Sunell Company Profile

DSI/Sunell Technology is a leading provider of intelligent video solutions worldwide, with a European headquarter in Leipzig and multiple offices worldwide. In 2012, Sunell Technology launched its first thermal imaging camera and now has several product lines, including 640 x 512/400 x 300/256 x 192. Sunell's thermal imaging cameras not only meet the needs of high-precision temperature measurements, but also support various in-depth learning processes algorithms to meet the requirements for perimeter intrusion and fire prevention indoors and outdoors, achieving true multi-functional use.

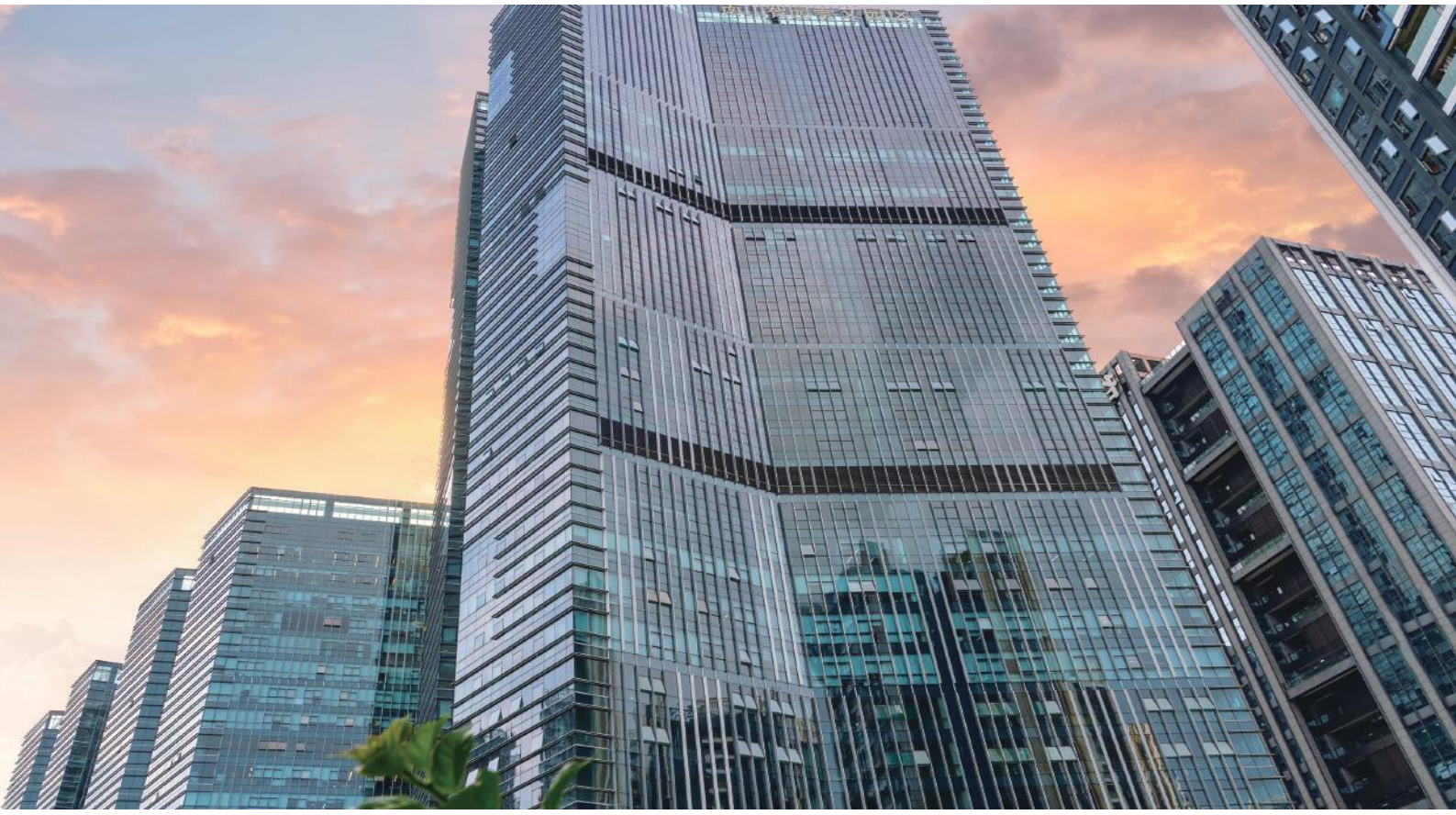
Our Bi-spectrum and a range of Thermal cameras are VdS3189, CNPP and NEN 2535 certified.

For large-scale project requirements, Sunell has powerful management platform software that can offer customers various industry-specific solutions. Furthermore, the cameras are integrated into various VMS and PSIM platforms. The cameras from the Thermal and Bispectral series are specially designed to work and display images under all conditions. The cameras have a thermal and/or visual lens on board with different sizes.

The cameras can recognize heat and smoke over a distance of 292 meters (1x1 m), as well as vehicles and people. In addition to these analytical matters, there are 8 other AI solutions on board.

Ideal for recycling companies but also for solar parks that are often not insured against fire and/or theft incidents. But petrol stations and parking garages also often use this camera to monitor the charging stations of electric cars and to receive a timely alarm in the event of a temperature increase.

DSI/Sunell, "AI + Bi-spectrum" provider of intelligent video solutions!



Sunell Thermal Specials and Certificates

All our camera's will be delivered with a full 7 year warranty, have a malwaretag(firm- and software checked for malware), SRTP encryption on board.

The products are procuced without ani chine supplier. We are using the following Suppliers: **NXP SOC**, **OPHIR** Optronics Lenses, The housing is made form **Dillux Steel** and painted with **Sikkens** Rubol Paint. Our power and PoE materials are from **AAEON**. We have our own Microbolometer.





But thats not all.
We are proud of our products and know from experience that they are reliable and safe. In addition to our experiences, we have also had the products tested by third parties and looked at which certificates are important in the world we operate in.

With these certifications you know that our product is safe because the mold and software have been tested by third parties.

Do our products meet the requirements set worldwide or desired in a specific segment? In short, you are assured of a reliable and safe product in the United States and Germany.

CE FCC RCM BSMI

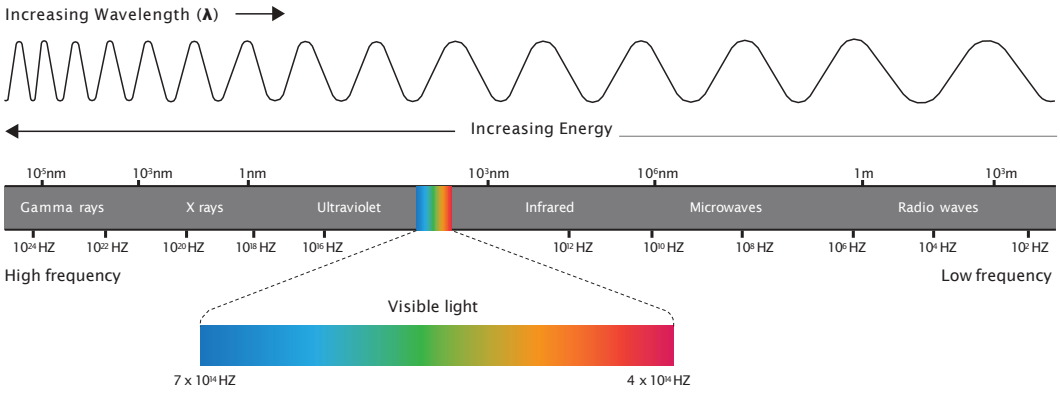
UL FIPS140-2 TűV GS VDS NEN

EAC KC C-tick TAPA

RoHS NDAA Compliant LGC DGűV CNPP

Thermal Imaging

Any object with a temperature above absolute zero(-273.15℃) emits a detectable amount of infra-red (IR) radiation, also called heat radiation. The higher an object's temperature, the higher intensity of emitted IR. Though human eyes cannot see it, the thermal imager is able to detect IR radiation of 8~14μm and make the invisible IR "visible". The difference in image details corresponds to thermal distribution on the object's surface, which is "thermal imaging".



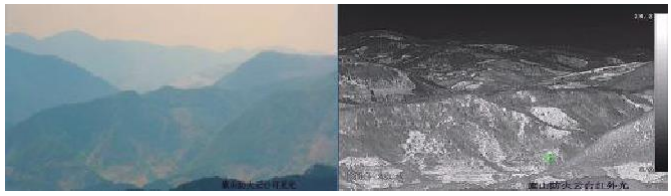
Features

Sharp Image without Light Source

The thermal imager forms an image without any visible light with heat radiation from the environment. Long-distance target is detected by it clearly all day.

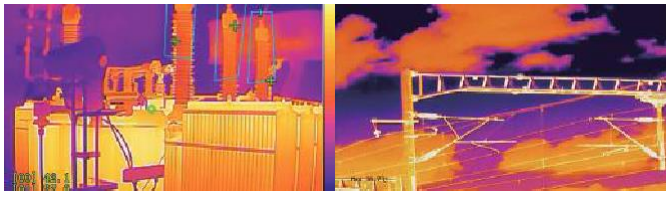
Excellent Cloud-and-Mist Penetration

Infrared thermal radiation has better penetration of rain, snow and haze than visible light, so it can take clear images even in bad weather.



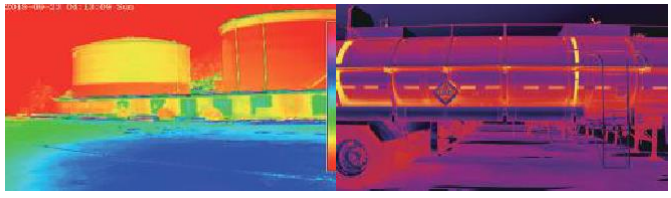
Non-contact Temperature Measurement

Thermal cameras measure accurately the surface temperature of the object by quantifying IR heat radiation without physical contact between sensor and the target.



Fault and Defect Detection

If there is malfunction occurred on the target, thermal imagers will find it out in a direct way using non-contact and long-distance temperature measurements.

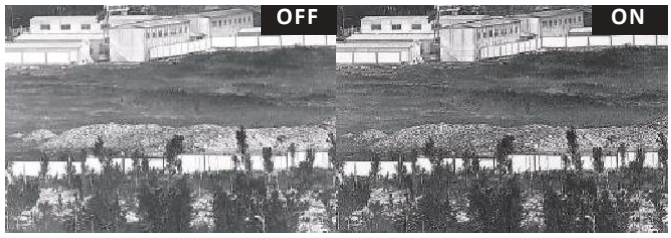


Core Technology

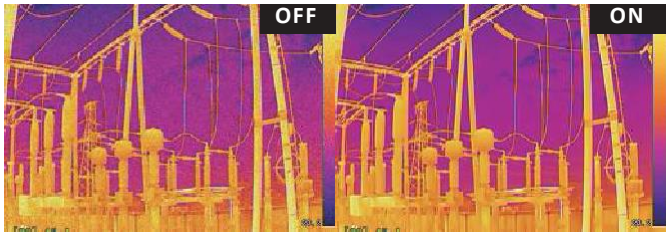
Excellent Image

AGC (Automatic Gain Control)

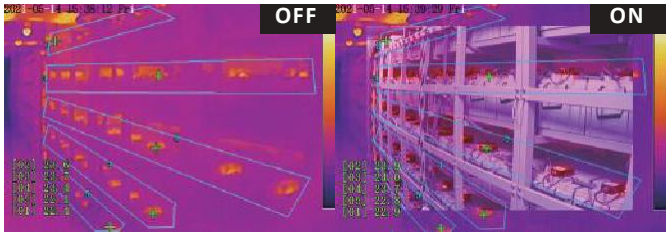
DDE (Digital Detail Enhancement)



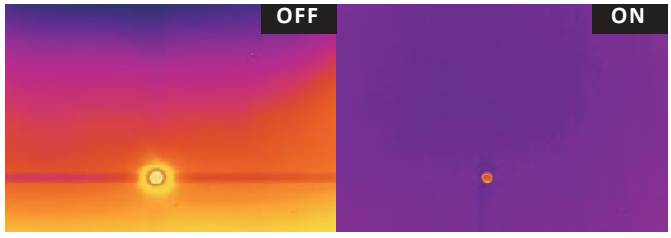
3D DNR (3D Digital Noise Reduction)



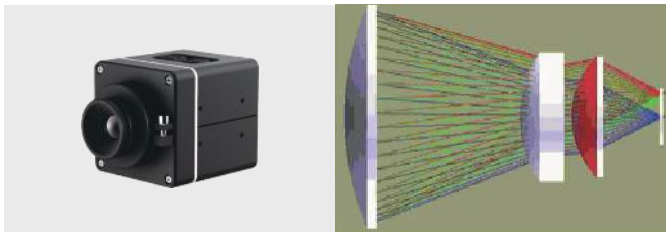
Bi-spectrum Image Fusion



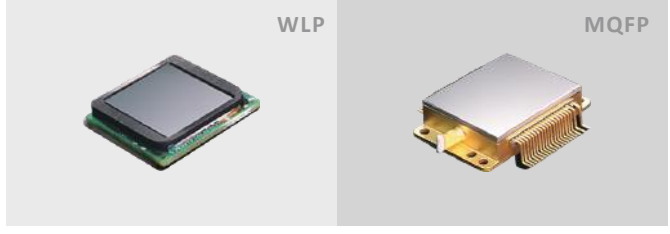
Auto Burning Prevention



Passive Athermalization



High-sensitivity Vox Detector



Intelligent Application

Deep Learning

Human
Vehicle
Fire Spot
Smoking
Ship

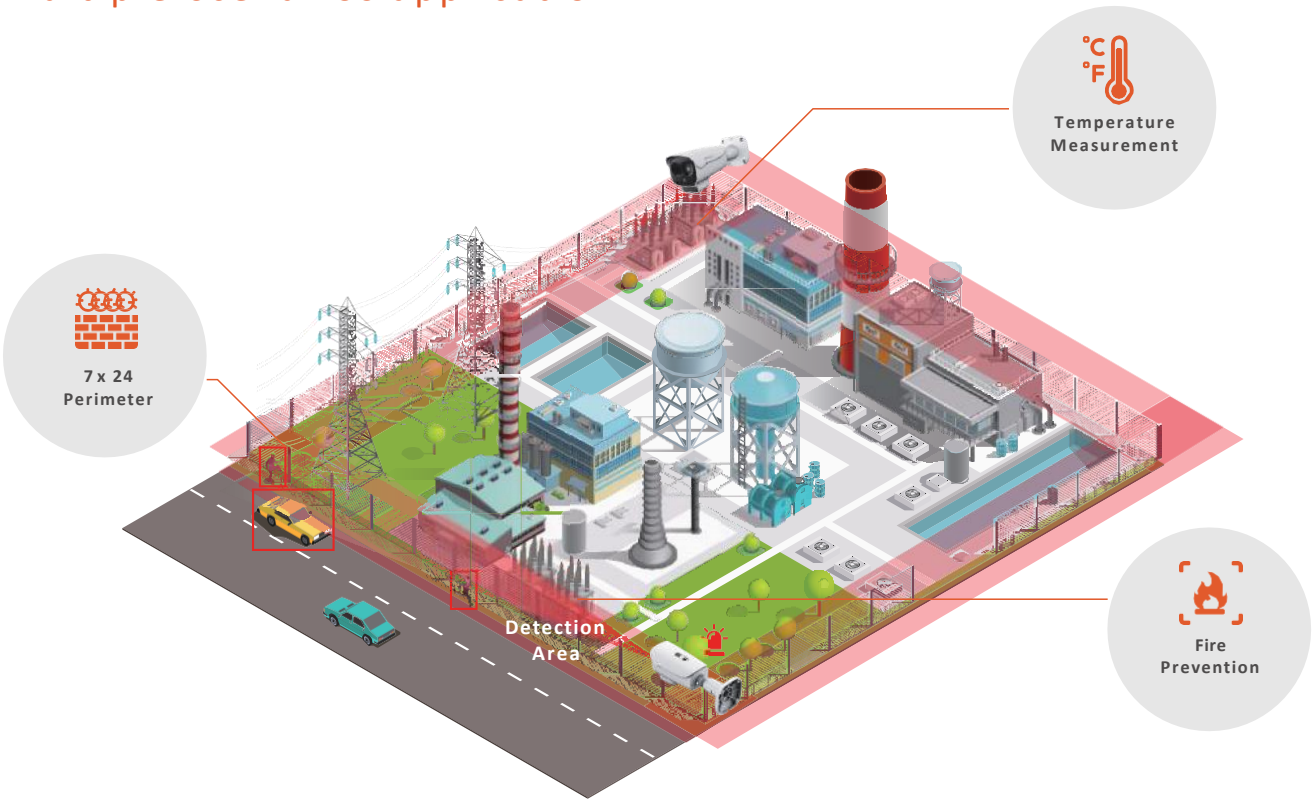
Smart Event

Intrusion
Single Line Crossing
Double Line Crossing
Loitering
Wrong-way
Enter Area
Leave Area
People Counting

Active Deterrence

Built-in sound and strobe-light alarms, voice content can be customized

Multiple-scenarios application

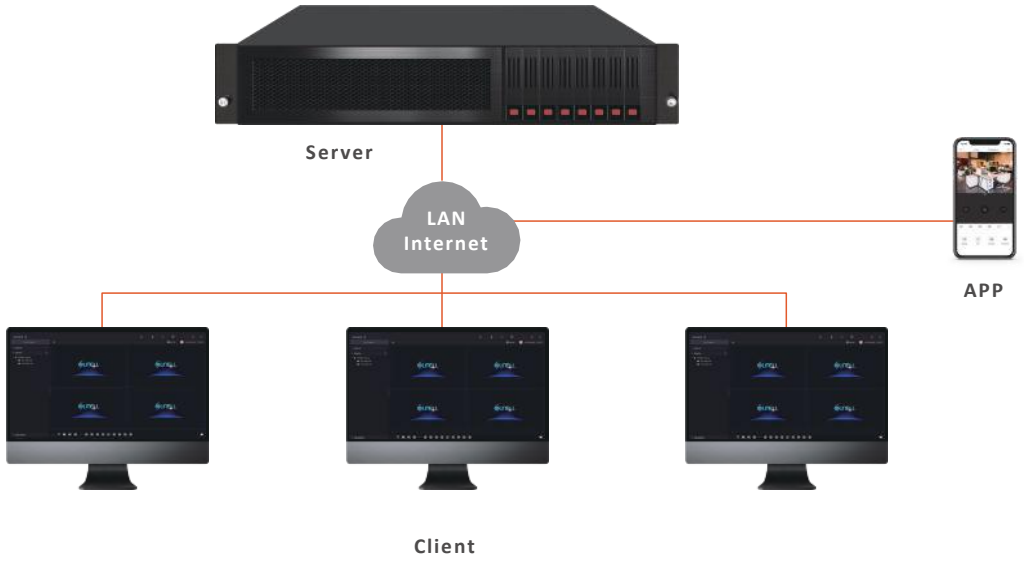


Compatibility

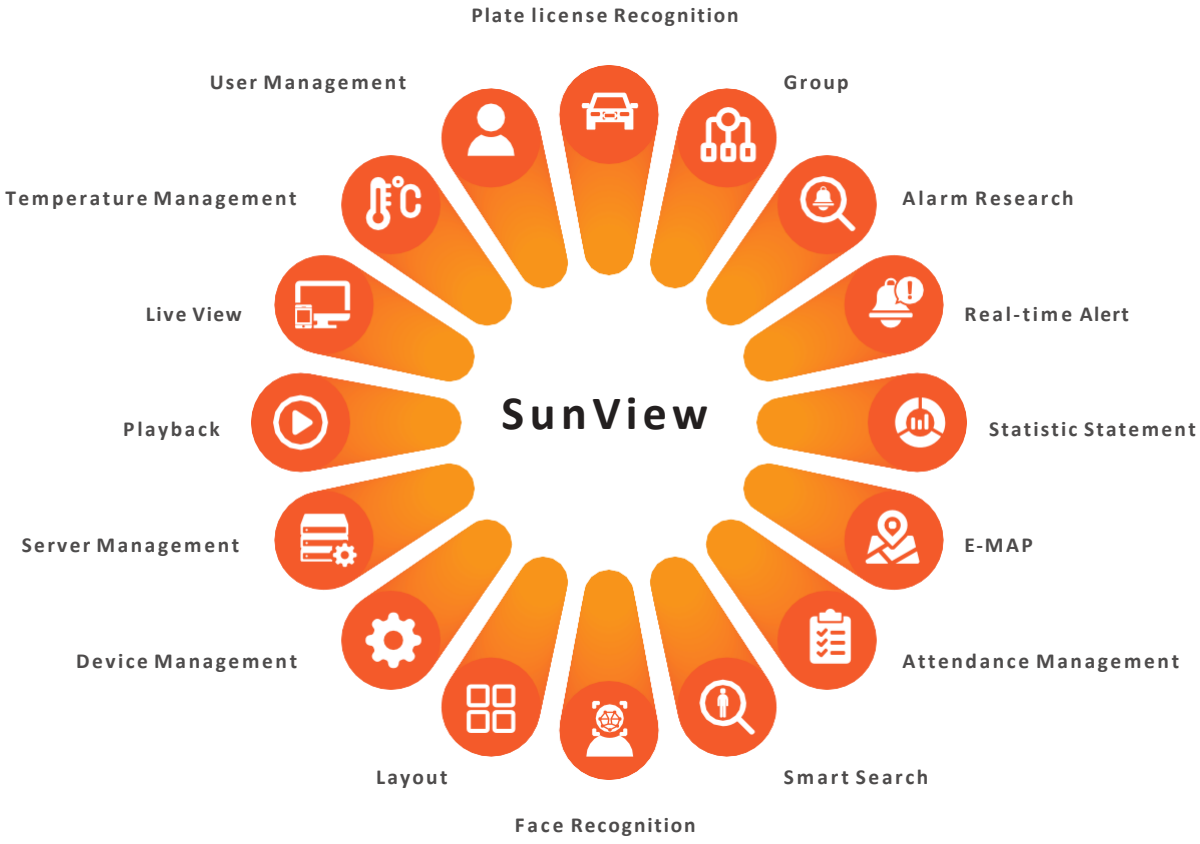
ONVIF CGI SDK CIP Modbus OPC

SunView Management Platform

SunView Composition



SunView Function Module



Integration with Third Party VMS and PSIM Suppliers

V21.12

IPC: 21.12, Profile S/Profile T/Profile G/Profile M
NVR: 21.12, Profile S/Profile T

Third Party Integration

But there are more integration already done.
More then 462 integrations with all kind of suppliers of software, convoyer, recyclingpartners etc.

Industry Application

Perimeter Protection

Solution Value

Thermal cameras are able to achieve all-weather monitoring for perimeter intrusion detection. Even in rain, snow, or fog weather, a target from a long distance does not easily hide from it. Built-in deep learning algorithm enables fewer thermal cameras to perform smart perimeter protection of large coverage and long range.

High Accuracy

With a built-in deep learning algorithm, thermal cameras can accurately detect humans, vehicles, and ships, and effectively reduce false alarms caused by animals, vegetation, and weather.

Hidden Target Detection

Thermal cameras effectively detect an target behind the vegetation or in the dark.

Bi-spectrum IVS

AI+ Bi-spectrum meets real all-weather monitor without blind spots.

Wider Range

Compared with optical lenses, thermal imaging does not require supplemental light. Therefore it is not affected by bad weather, making coverage wider and ranger longer.

Active Deterrence

There are alarm lights and speakers inside thermal cameras; Voice customizable; Real-time sound and light alarms to deter intruders.

Complete Category

Thermal product category is complete to meet short, medium and long perimeter.

Application Scenarios

Short Distance (within 100 m)

High cost-effective; Bi-spectrum: 256 x 192 Thermal+ HD optical;
All-weather smart perimeter protection; Accurate human and vehicle detection; Real-time sound and light alarm

SNTPC2553CTF

SNTPC2553DRTF

Apartments

Parking Lots

Factories

Warehouses

Medium Distance (100~ 500 m)

400 x 300 / 640 x 512 high thermal resolution; Flexible mix: One/ Dual/PTZ thermal cameras optional; Large coverage and all-weather smart perimeter protection

SNTPC4203KTF
SNTPC6406KTF

SNTPC4233DJTF

SNTPC6457DLTF

SNTPC4233QFF
SNTPC6436QFF

SNTPS4157ETF
SNTPS6457ETM

Photovoltaic Power Stations

Rivers

Railways

Steel Industry

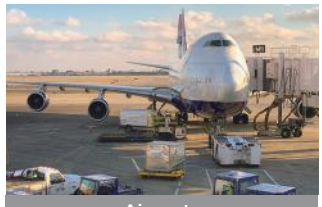
Long Distance (over 500 m)

All-weather accurate monitor on large and beyond visual range coverage when deployed at commanding heights; Big scene, but also HD close-up target identification

SNTPC4233LZFM
SNTPC6436LZFM

SNTPC4233ZZM
SNTPC6436ZZM

SNTPC4233HZM
SNTPC6436HZM



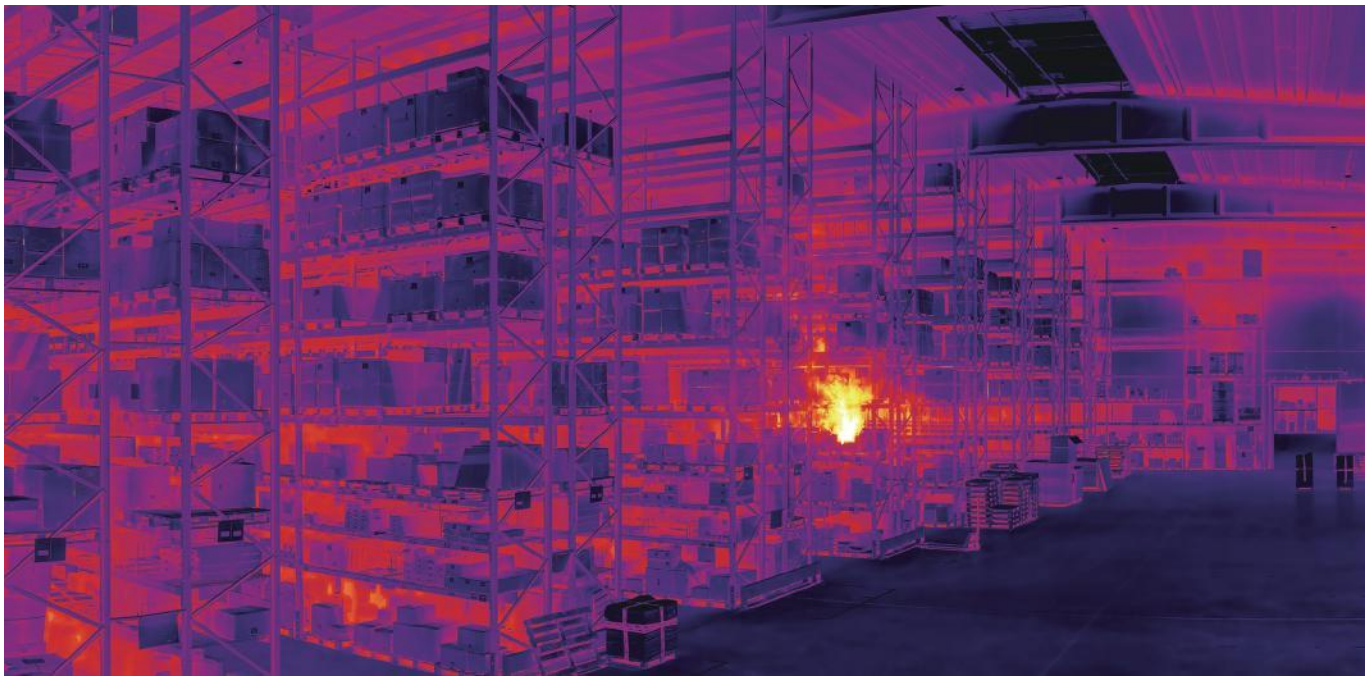
Airports

Reservoirs

Basements

Conservation Areas

Fire Prevention



Solution Value

With Fire Spot, Fire/Smoke, Temperature Threshold, and other temperature alarms, Sunell thermal cameras can give timely alerts to prevent the occurrence, development, or spread of a fire hazard. By giving an early warning signal, a fire hazard can be effectively avoided and the loss caused by it can be reduced.

Fire Spot Detection (Thermal)

By Fire Spot alarm algorithm, thermal cameras can locate fire spots in time and prevent fire from occurrence.

Fire/Smoke Detection (Optical)

Intelligent Fire/Smoke detection allows thermal cameras to activate the alarm as soon as possible when fire or smoke is identified.

Temp Anomalies Detection

Online temperature monitoring can detect the hot spot or quick temperature rising, effectively avoiding fires.

Smoking Detection

Thermal cameras detect cigarette smoking behavior and activate smoking alarms, lowering the fire risk.

Real-time Sound and Light Alarm

There are built-in alarm lights and speakers to notify the temperature alarm; Voice customizable.

Complete Category

Thermal product category is complete to meet short, medium and long fire prevention.

Application Scenarios

Short Distance

Multiple algorithms are supported by one of the above cameras, such as Fire Spot Detection, Fire/Smoke Detection, and Smoking Detection. It can also activate Temperature Threshold and Temperature Rise alarms. In this way, the occurrence of fires can be prevented in time.

SNTPC2532CTF SNTPC2553DRTF SNTPC4233DJTF SNTPC6457DLTF

Gas Stations

Battery Warehouses

Data Centers

Warehouses

Museums

Charging Stations

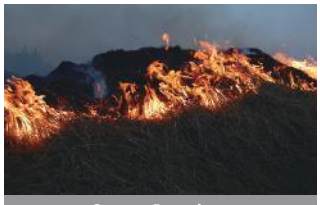
Battery Car Sheds

Hazardous Chemicals

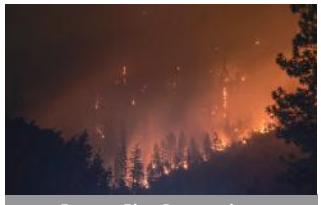
Medium and Long Distance

Fires usually happen suddenly and are destructive, which are detrimental to the environment, therefore making fire extinction and rescue hard to proceed. Bi-spectrum PTZ thermal cameras can detect fire spots from a medium and long distance. The administrators can be notified in time with alarms before fires get developed and spread.

SNTPT4233LZF SNTPT6436LZF SNTPT4233ZZM SNTPT6436ZZM SNTPT4233HZZ SNTPT6436HZZ



Straw Burning

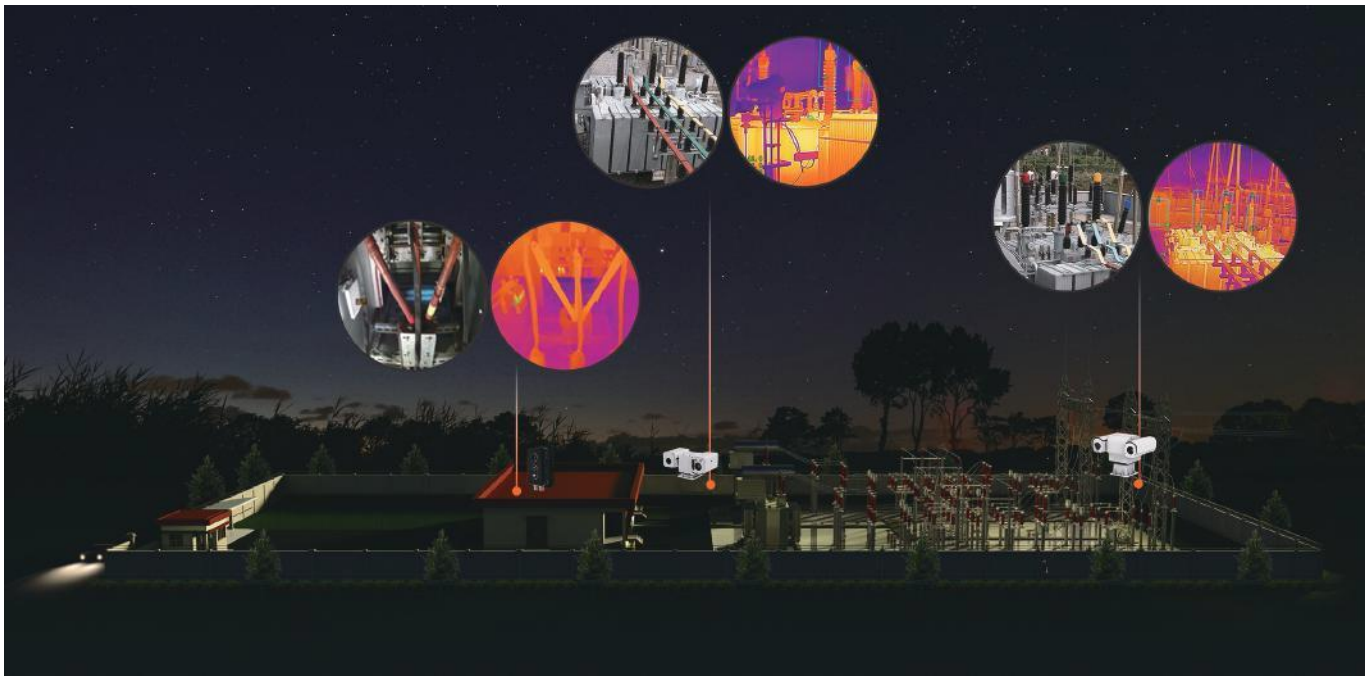


Forest Fire Protection

Power Lines

Landfills

Temperature Measuring (Electrical Industry)



Solution Value

Most of the abnormalities and failures of power equipment are caused by the Heating Effect of Electric Current. If no measures are taken, it is very likely to cause safety accidents. Sunell thermal cameras are widely used in all aspects of electricity generation, transformation, transmission, and distribution in the electrical industry.

Temperature Accuracy

±2℃ (±3.6 ℉) / ± 2%

Temperature Range Customizable

Default: -20℃~150℃ (-4℉~302℉)
Customizable: ≤900℃ (1652℉)

Temperature Areas

Support 3 temperature measurement rule types (spot, line, area)

Temperature Alarm Types

Temperature Threshold/Difference/Rise

Worm Gear and Worm Drive PTZ

Thermal PTZ cameras can always locate the position accurately. It will not be affected by external power.

Preset Temperature Monitoring

Thermal PTZ series can monitor the temperature of preset points, which meets the requirement of multi-object temperature measuring in a big scenario.

Inspection Plan

Configure thermal imaging inspection plan, retrieve inspection records, generate inspection report, etc.

Temperature Curve

Sunell SunView platform can retrieve historical data of thermal imaging cameras and area temperature measurements in curves, which provides a basis for judging the operating status of equipment.

Application Scenarios

Transformer Substation

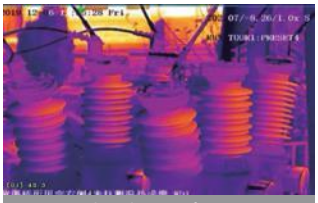

SND2LF


SNTPC6406kTF

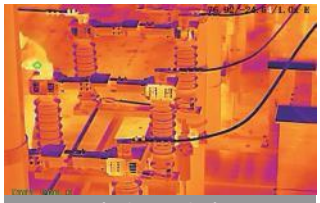

SNTPC4233DJT

Online detection of common faults such as lack of oil in transformer bushings, poor contact of isolating switches and circuit breaker contacts, heating of transformers, capacitors, and lightning arrester joints, etc.


Transformers


Circuit Breakers


Mutual Inductors


Isolating Switches

Electricity Generation


SND2LF


SNTPC2553CTF


SNTPC4233DJT


SNTPT4233LZFM
SNTPT6436LZFM

Online temperature measurement in coal yards, conveyor belts, coal mills, pulverized coal pipelines, transformers, etc.

Online temperature measurement of high-voltage electrical equipment such as hydroelectric generator sets and booster stations.

Online temperature measurement of engine room generator set, variable pressure, high voltage switch cabinet, etc.

Online temperature measurement of combiner boxes, inverters, booster stations, and other equipment, hot spot detection of photovoltaic modules.


Thermal Power


Hydropowe


Wind Power


Photovoltaic Power

Electricity Transmission


SNTPT4233QFFM
SNTPT6436QFFM

Detection of the thermometer abnormality caused by oxidation and corrosion of metal fittings or wire clips, loose bolts, poor contact, etc.

Electricity Distribution


SND2LF

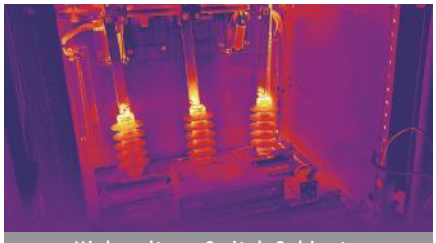

SNTPC2553CTF


SNTPT4233QFFM
SNTPT6436QFFM

Online temperature measurement of high-voltage switchgear busbars, cable joints, etc.


High-voltage Transmission Lines


Electricity Distribution Room


High-voltage Switch Cabinets

Industry Application

Photovoltaic Power

Solution Value

Photovoltaic power stations occupy a large area, which is generally located in remote areas and have relatively high operation and maintenance costs. By deploying Sunell thermal imaging cameras, management efficiency effectively improves, and long-distance fire points and perimeter intruders can be quickly found. By conducting online temperature measurements, Sunell thermal cameras can detect potential safety hazards of key equipment such as combiner boxes, inverters, transformers, and energy storage cabinets in a timely manner.

Application Scenarios

Perimeter Protection

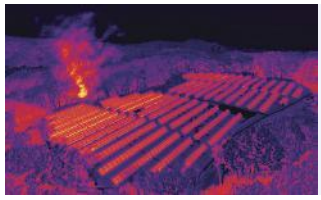
Sunell thermal cameras can detect intruders (human, animal, etc.) in a long distance by sound and light alarms.

SNTPC2553DRTF

SNTPC4233DJTF

Fire Prevention

With Bi-spectrum PTZ series deployed in photovoltaic power stations where there are lots of weeds and trees, fire points can be found swiftly, the detection distance is long and the accuracy is high.



SNTPT4233QFFM
SNTPT6436QFFM

SNTPT4233ZZM
SNTPT6436ZZM

Real-time Temperature Measuring

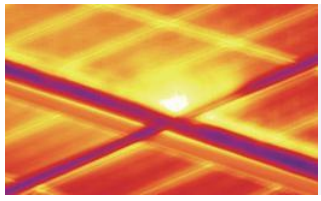
By conducting online temperature measurements, Sunell thermal cameras can detect potential safety hazards of key equipment such as combiner boxes, inverters, transformers, and breakers in a timely manner.

SND2LF

SNTPC6406KTF

Hot Spot Detection

The thermal imaging PTZ series automatically inspects and captures photos. By temperature difference alarm or manual review, it can help judge the hot spot situation.



SNTPT4233LZFM
SNTPT6436LZFM

Petrochemical Industry

Solution Value

The industrial chain of the petrochemical industry is very large, including oil exploration, pipelines, chemical plants, oil depots, gas stations, etc. Many places in this industry are characterized by high temperature, high pressure, flammability, and explosion. Sunell thermal imaging is able to monitor the status of equipment online, detect potential safety hazards of equipment in a more timely manner and play an important role in reducing the occurrence of accidents.

Application Scenarios

Perimeter Protection

Theft detection in oil fields and pipelines, etc.
Intrusion detection to prevent accidents in High-risk areas.

SNTPC4233DJT

SNCHP8650EBRZ30
SNCHP8641EBRZ37

Fire Prevention

Real-time Fire Spot and Smoking alarms to find the potential fire risk and fire situation in hazardous chemical warehouses with raw materials and finished products, non-smoking factory areas, oil depot areas, oil tank areas, gas stations, and other scenarios.

SNTPC2553DRT

SNCHP8650CDNZ30

Real-time Temperature Measuring

Online accurate temperature measurement of refining and chemical equipment, pipelines, station valve hall equipment, electrical equipment, etc.

SNCHP8650CDNZ30

SNTPT6436PARZ30

Fault and Defect Detection

Oil storage tank liquid level line, fouling, tank damage, etc. detection.
Detection of pipeline corrosion, leakage, blockage, etc.

SNCHP8650CDRZ30

SNTP8641PARZ37

Metallurgical Industry

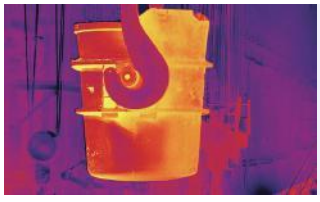
Solution Value

Temperature is an important indicator in many production chains in the metallurgical industry. Sunell Thermal cameras can perform real-time temperature measuring to monitor whether there is any abnormality in the production status. Hidden dangers of equipment can be quickly found by thermal imaging analysis, effectively ensuring normal production and increasing production efficiency.

Application Scenarios

Real-time Steel Ladle Protection

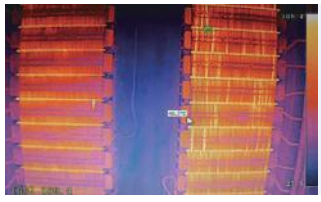
The thermal imager accurately measures the temperature of the steel ladle, and take clear thermal images, which can visually judge the defects of the ladle lining and analyze the degree of the defect.



SNCHP8650CDNZ30

Electrolyzer Temp. Rise Monitor

Simultaneous temperature measurement of multiple groups of electrolytic cells; Online temperature changes monitoring of the electrolyte and the plate; Sound and light alarm linkage.



SNCHP8650CDRZ30

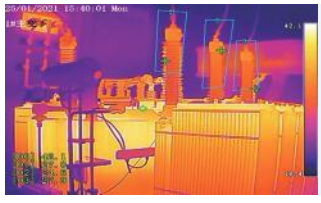
Detection of Hidden Dangers

Sunell thermal camera is able to detect hidden dangers of smoldering coal piles and high-temperature anomalies of conveyor belts, which can be linked with spraying for cooling.

SNTPC4233DJTF

Electrical Equipment Temp. Measuring

Online temperature measurement of electrical equipment such as power transformation and distribution.



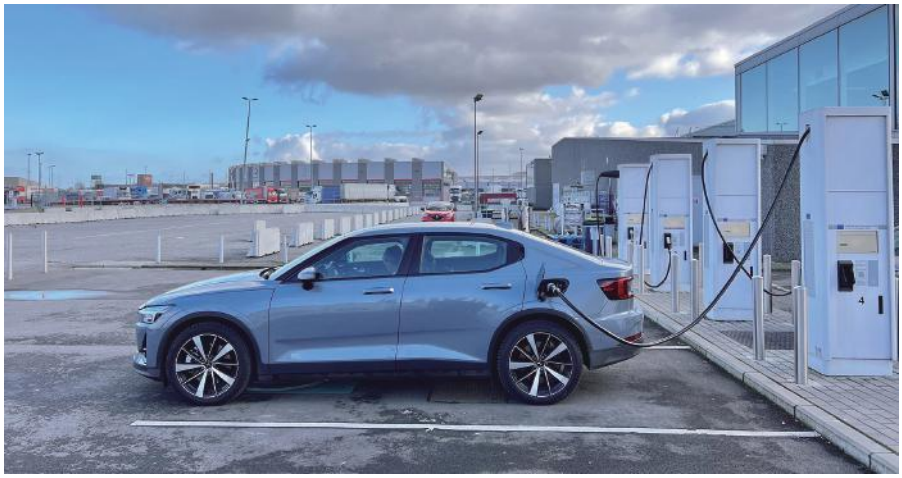
SNTPC6406KTF

SNTPS6457ETM

New Energy Industry

Solution Value

The proportion of sales of new energy vehicles is getting higher and higher, followed by more rapid expansion of power battery-related industrial chains and more frequent occurence of spontaneous combustion accidents. Safety issues are becoming increasingly prominent. Thermal imaging cameras can increase the safety of upstream and downstream enterprises in the new energy industry chain.



Application Scenarios

Raw Material

The electrolyte is volatile and flammable while Sunell explosion-proof thermal imaging is able to perform the fire prevention.

SNTPH4203DAFM
SNTPH6406DAFM

SNTPT4233PAFM
SNTPT6436PAFM

Factories

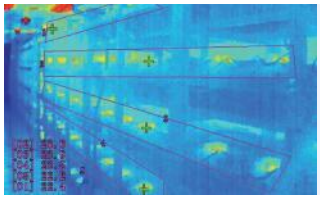
During the charging and discharging process of the power battery, it may spontaneously ignite due to problems such as the quality of the battery cell and the PACK process. It is very important to know the temperature in real-time. Sunell thermal imager is applicable in production, aging, storage, and other chains to find battery quality defects in time.

SNTPC2553DRT

SNTPS4157ETF

BESS

Real-time simultaneous temperature monitoring of the positive and negative poles of multiple sets of batteries to find abnormal batteries in time.



SND2LF

SNTPC2553CTF

Charging & Battery Swap Stations

Electric vehicle fires frequently occur in areas with huge losses caused by them.
When abnormalities are found by real-time temperature monitoring, Sunell thermal imager can activate the alarm in time.

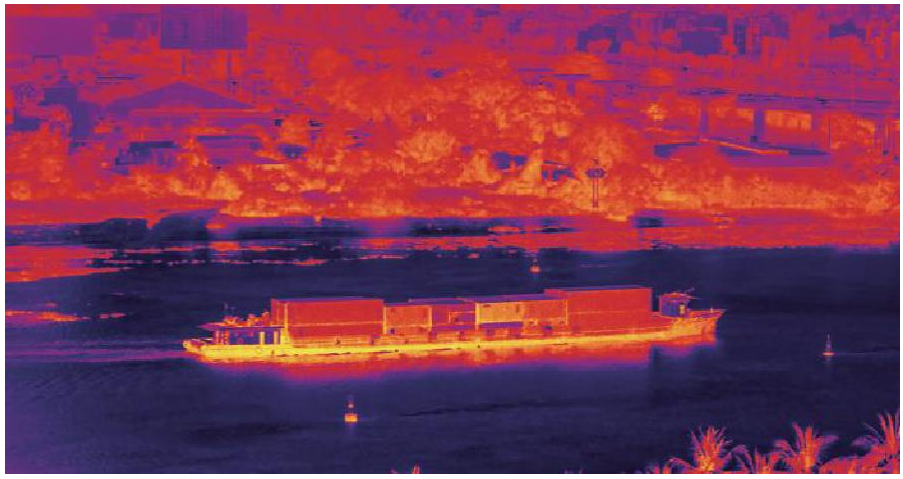
SNTPC2553CTF

SNTPC2553DRTF

Water Conservancy Industry

Solution Value

Rivers and lakes are an important part of the natural ecology. The personnels can manage rivers better at night or in bad weather with the help of Sunell thermal cameras to stop environmental damage and crimes in a timely manner.



Application Scenarios

Illegal Intrusion

Ship illegal intrusion active deterrence for gates and other waters where ships are prohibited from traveling and stopping.

SNTPT4233QFFM
SNTPT6436QFFM

SNTPT4233ZZM
SNTPT6436ZZM

Illegal Sand Mining

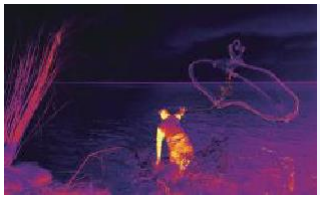
Illegal sand mining destroys the ecology of the river channel. Sand mining causes uneven river beds and even affects the safety of flood control dams. Sunell thermal imaging can detect illegal mining at night. The detection distance is up to more than 5 kilometers.

SNTPT4233LZM
SNTPT6436LZM

SNTPT4233ZZM
SNTPT6436ZZM

Illegal Fishing

Sunell thermal imaging is suitable for monitoring dangerous or illegal activities, such as illegal fishing during fishing bans, fishing and swimming in reservoirs, etc.



SNTPT4233LZM
SNTPT6436LZM

SNTPT4233ZZM
SNTPT6436ZZM

Illegal Rubbish Dumping

Real-time monitoring of illegal activities such as dumping garbage on the river bank at night. Real-time alarms of vehicles entering the defense area by vehicle shape algorithm.

SNTPT4233LZM
SNTPT6436LZM

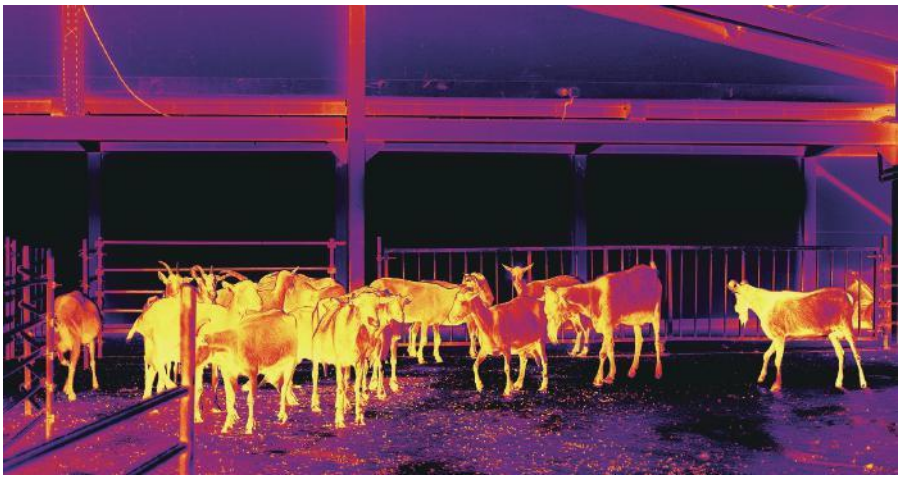
SNTPT4233ZZM
SNTPT6436ZZM

Livestock & Poultry Industry

Solution Value

With the heat distribution pattern on the body surface of the individual obtained by Sunell thermal imager, it is helpful to analyze and judge the lesion location and lesion degree.

Non-contact temperature measurement helps avoid individual stress reactions.



Application Scenarios

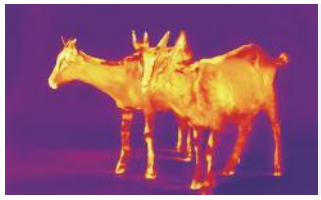
Swine Fever Virus

Acute swine fever virus has the characteristics of a short incubation period, high fever, and rapid death. Sunell thermal cameras can monitor pig herd temperature on a daily basis, which can be seen as an early diagnostic tool for swine fever infection.

SNTPC2553DRTF SNT5H

Foot-and-Mouth Disease(FMD)

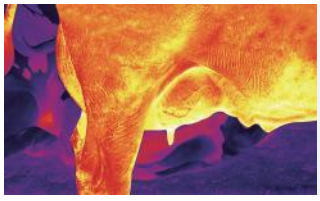
Foot-and-mouth disease is an acute, febrile, and highly contagious infectious disease common to pigs, cattle, sheep,and other animals, with more than 70 susceptible animals. The disease spreads quickly through many routes. Sunell thermal imaging is believed to be able to detect FMD early by observing hyperthermia.



SNT5H

Bovine Mastitis Disease

Bovine mastitis is a major problem faced by the dairy industry, accounting for more than 40% of cattle morbidity. The disease leads to hypofunction of the mammary glands of dairy cows and even loss of the function of lactation. However, Sunell's thermal imaging camera can detect the disease at an early stage.



SNT5H

Bovine Respiratory Disease (BRD)

The bovine respiratory disease causes serious harm to the cattle industry every year. When the disease occurs, the temperature of the bull's eye will rise.
Sunell thermal cameras can measure the temperature and monitor this disease.

SNT5H

Thermal & Optical Bi-Spectrum Network Cube Camera

SND2L

256×192

Super Wide Angle | Temperature Accuracy | White LED | Dual Image Fusion | IP66

- Thermal: 256×192, 12μm, 2.0 mm, H: 90˚, V:65˚
- Optical: 2MP, 1600×1200, 2.3 mm, H: 100˚, V: 75˚
- Dual Image Fusion
- White LED
- Temp. Accuracy: ±2˚C / ±2%
- Temp. Pre-alarm & Alarm
- Temp. Threshold/Difference/Rise Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temp. Range: -20˚C~150˚C
- Interface: 1Alarm In/Out, RS485/232, Micro SD card
- DC10~30V/POE(802.3af)
- IP67

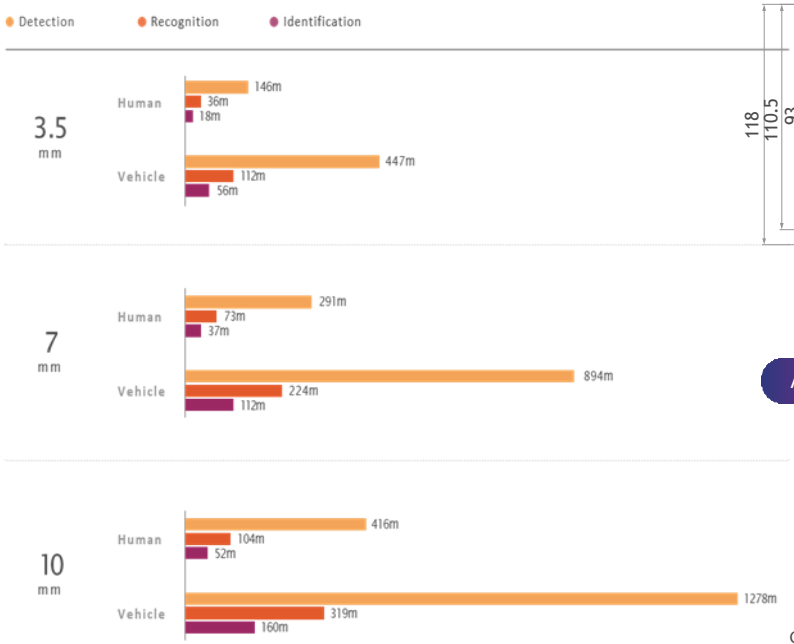
Application Scenarios

High voltage switch cabinet and other industrial temperature measurement scenarios with narrow space.

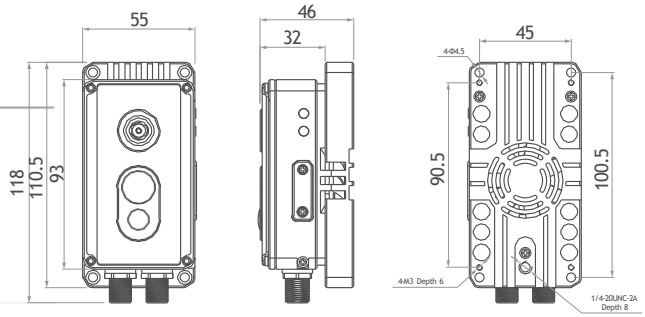
256x192

12μm

Human: 1.8×0.5 m | Vehicle: 4×1.5 m | Fire: 1×1 m



Dimensions (mm)



Accessories

Gimbal Mount Bracket

Thermal & Optical Bi-Spectrum Network Turret Camera

NDAA COMPLIANT

SNTPC2553CTF

Human Detection | Vehicle Detection | Active Deterrence | Smoke/Fire Detection | Smoking Detection | Temperature Accuracy ±2℃

256×192

- Thermal: 256×192, 12μm, 3.5 mm
- Optical: 5MP, 2560×1440, 4 mm
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/ Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Built-in Microphone
- Built-in speaker & alarm light
- 35 m IR
- Temp. Accuracy: ±2℃ / ±2%
- Temp. Range: -20℃~150℃
- Interface: 1Audio In/Out, 1Alarm In/Out, RS485, HDMI, Micro SD Card
- DC12V/DC24V/POE(802.3af)
- IP66

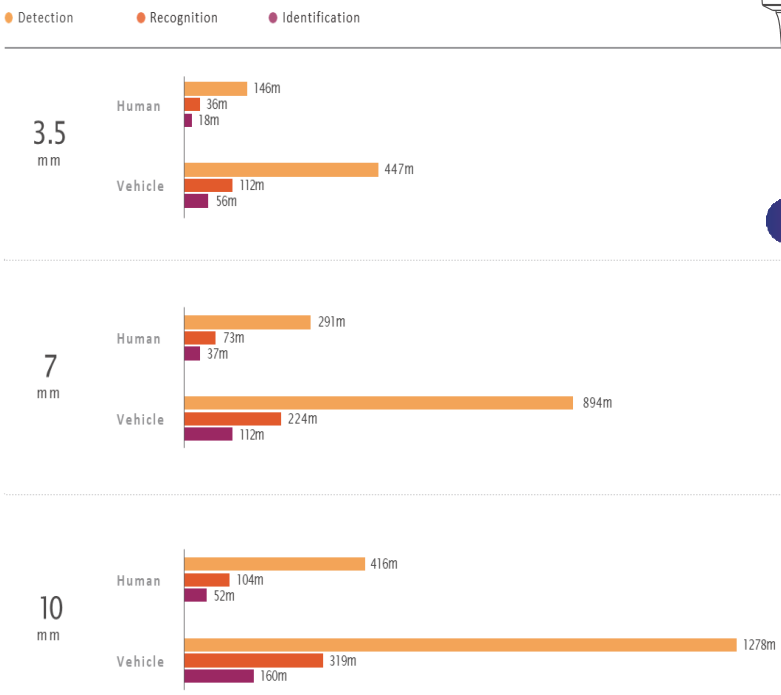
Application Scenarios

Perimeter Protection, Indoor Fire Prevention, Industrial Temperature Measuring…

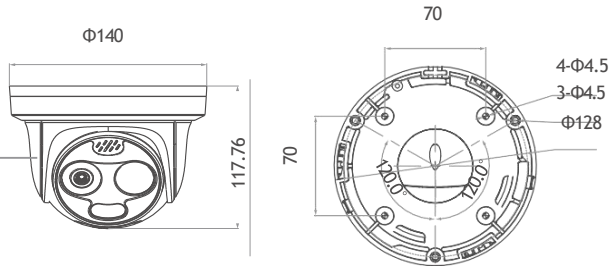
256x192

12μm

Human: 1.8×0.5 m | Vehicle: 4×1.5 m | Fire: 1×1 m



Dimensions (mm)



Accessories

Junction Box	Bracket Mount Adapter	Pendant Mount Bracket	Wall Mount Bracket
SNCBK645D	SNCBK206	SNCBK402	SNCBK501

Wall Mount Bracket	Pole Mount Bracket	Corner Mount Bracket
SNCBK502	SNCBK101	SNCBK102

Thermal & Optical Bi-Spectrum Network Bullet Camera

NDAA COMPLIANT

SNTPC2553DRTF

256×192

Human Detection | Vehicle Detection | Active Deterrence | Smoke/Fire Detection | Smoking Detection | Temperature Accuracy

- Thermal: 256×192, 12μm, 3,5 7or10 mm
- Optical: 4MP, 2880×1620, 4 or 8 mm
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/ Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Built-in speaker & alarm light
- LED Temperature Display
- 35-55 m IR
- Temp. Accuracy: ±2˚C / ±2%
- Temp. Range: -20˚C~150˚C
- Interface: 1Audio In/Out, 2 Alarm In/Out, RS485, Micro SD card
- DC12V/DC24V/POE (802.3af)
- IP66

Application Scenarios

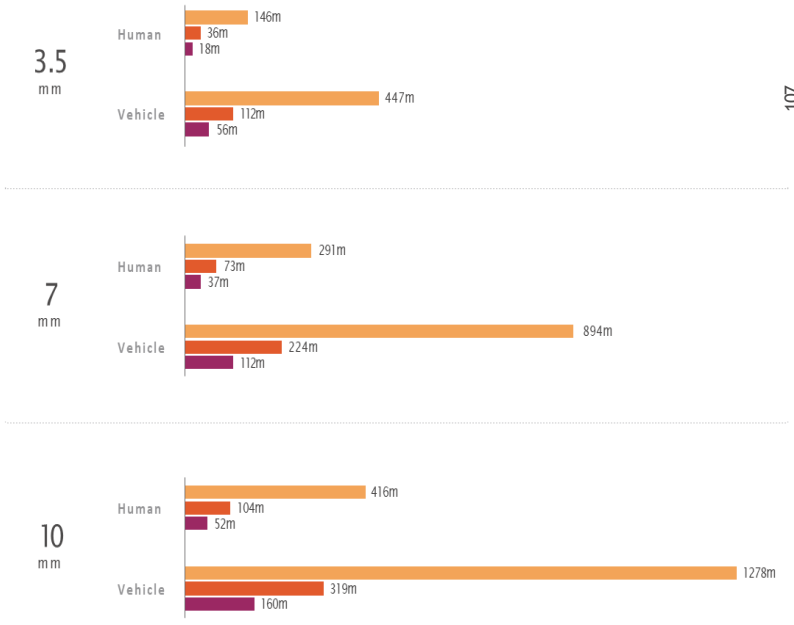
Perimeter Protection, Indoor/Outdoor Fire Prevention, Industrial Temperature Measuring...

256x192

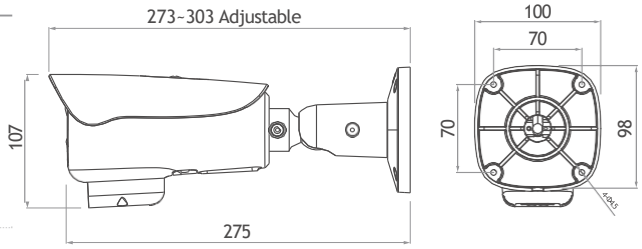
12μm

Human: 1.8×0.5 m | Vehicle: 4×1.5 m | Fire: 1×1m

Detection | Recognition | Identification



Dimensions (mm)



Accessories

Junction Box
SNCBK649B

Pole Mount Bracket
SNCBK627D

Thermal & Optical Bi-Spectrum Network Bullet Camera

NDAA COMPLIANT

SNTPC4233DJT

400×300

Human Detection | Vehicle Detection | Smoke/Fire Detection | Smoking Detection | POE+

- Thermal: 400×300, 17μm, 8/15/25/35/50 mm
- Optical: 2MP, 1920×1080, Motorized Lens : 5~50 mm
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- 100 m IR
- Temp. Accuracy: ±2˚C / ±2%
- Temp. Pre-alarm & Alarm
- Temp. Threshold/Difference/Rise Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temp. Range: -40˚C~150˚C, Customizable
- Interface: 1Audio In/Out, 2 Alarm In/Out, RS485
- DC12V/POE+ (802.3at)
- IP66

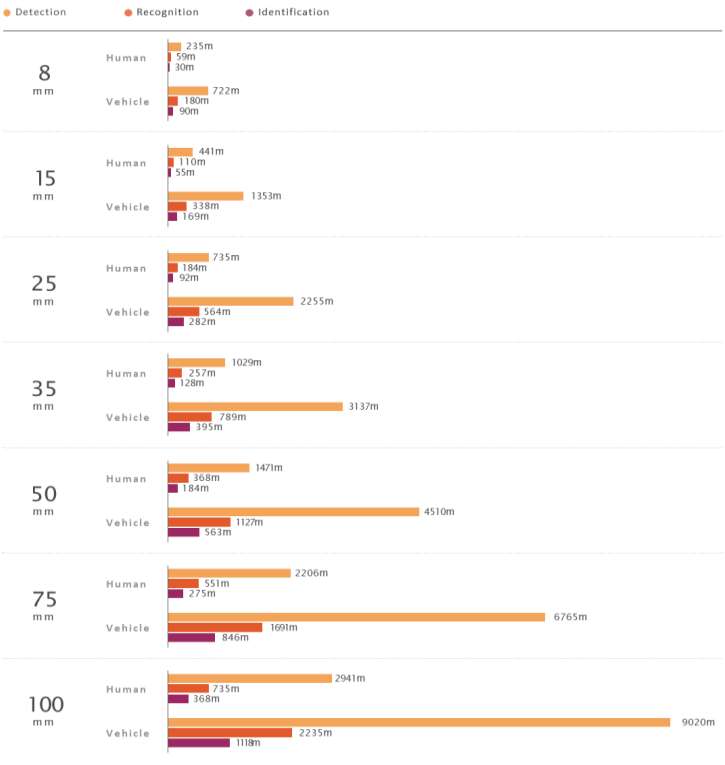
Application Scenarios

Perimeter Protection, Indoor/Outdoor Fire Prevention, Industrial Temperature Measuring…

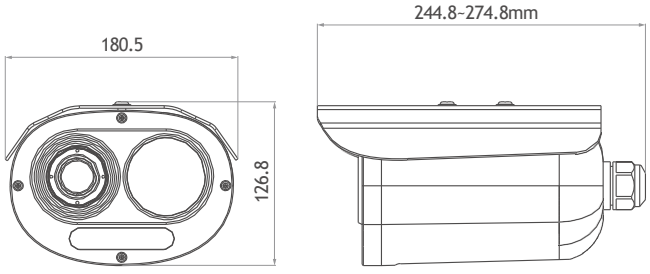
400x300

17μm

Human: 1.8×0.5 m Vehicle: 4×1.5 m



Dimensions (mm)



Accessories

Wall Mount Bracket

SNBK346

Pendant Mount Bracket

SNBK350

Thermal & Optical Bi-Spectrum Network Bullet Camera

NDAA COMPLIANT

SNTPC6457DLTF

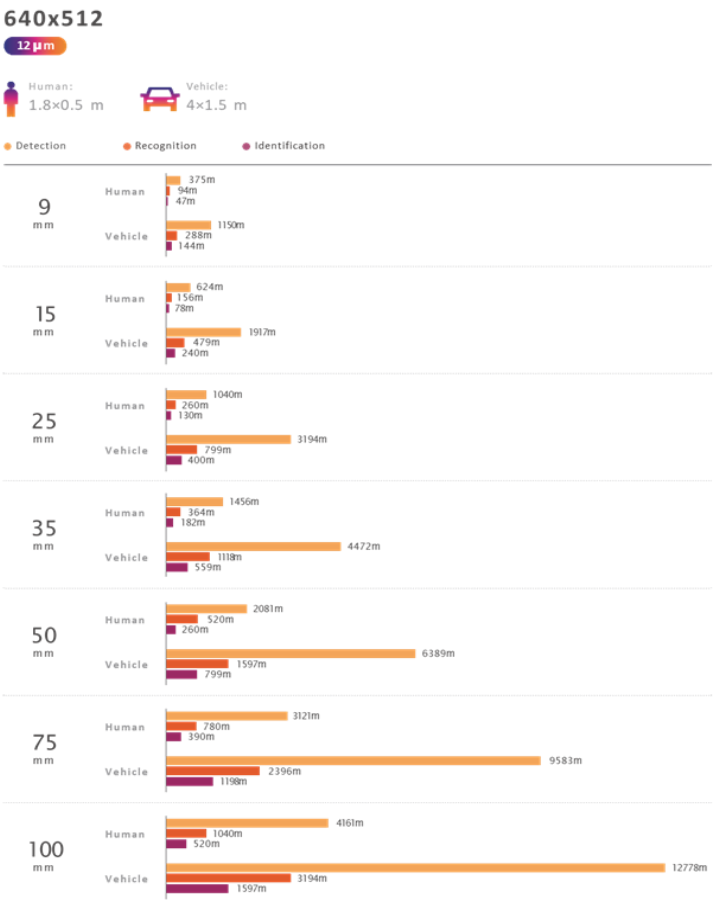
640×512

Human Detection | Vehicle Detection | Smoke/Fire Detection | Smoking Detection | POE+

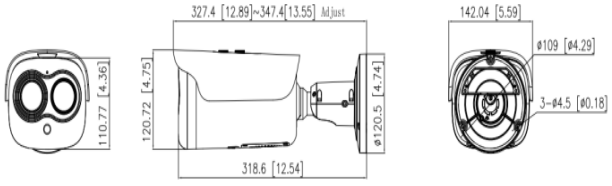
- Thermal: 640×512, 12μm, 9/15/25/35/50 mm
- Optical: 2MP, 1920×1080, 4,6,10 OR 30 mm fixed lens
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- 100 m IR
- Temp. Accuracy: ±2℃ / ±2%
- Temp. Pre-alarm & Alarm
- Temp. Threshold/Difference/Rise Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temp. Range: -40℃~150℃, Customizable
- Interface: 1Audio In/Out, 2 Alarm In/Out, RS485
- DC12V/POE+ (802.3at)
- IP66

Application Scenarios

Perimeter Protection, Indoor/Outdoor Fire Prevention, Industrial Temperature Measuring…



Dimensions (mm)



Accessories

SN-CBK645G
Junction Box

SN-CBK101A
Pole Mount

SN-CBK102A
Corner Mount

Thermal Network Bullet Camera

SNTPC4201KTF
SNTPC4203KTF

Parameters vary according to device models.

400×300

Human Detection | Vehicle Detection | IVS | Temperature Accuracy | POE

- Thermal: 400×300, 704x576, 17μm, 8/15/25/35/50 mm
- Deep Learning: Human/Vehicle/Fire Spot/Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Temp. Accuracy: ±2°C / ±2%
- Temp. Pre-alarm & Alarm
- Temp. Threshold/Difference/Rise Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temp. Range: -40°C~150°C, Customizable: ≤900°C
- Interface: 1Audio In/Out, 2 Alarm In/Out, RS485, Micro SD Card
- DC12V/POE (802.3af)
- IP66

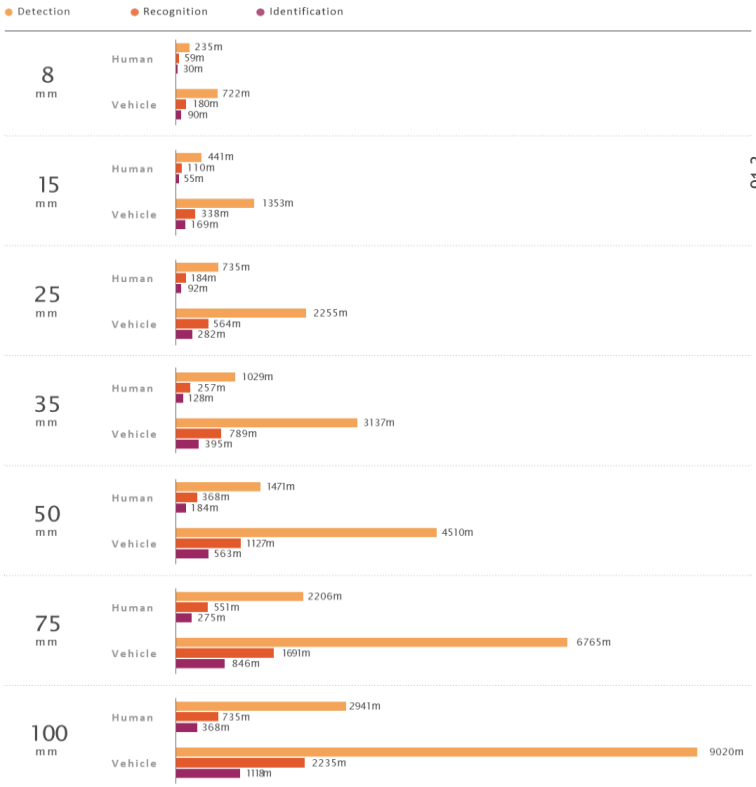
Application Scenarios

Perimeter Protection, Industrial Temperature Measuring...

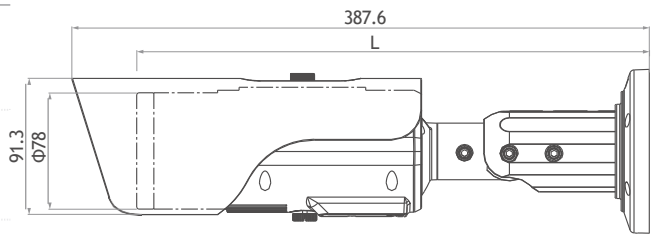
400x300

17μm

Human: 1.8×0.5 m Vehicle: 4×1.5 m



Dimensions (mm)



Accessories

Junction Box
SNCBK649B

Pole Mount Bracket
SNCBK627D

Thermal Network Bullet Camera

NDAA COMPLIANT

SNTPC6406KTF

640×512

Human Detection | Vehicle Detection | Fire Spot | Temperature Accuracy | POE

- Thermal: 640×512, 12 μm, 9/15/25/35/50 mm
- Deep Learning: Human/Vehicle/Fire Spot/Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Temp. Accuracy: ±2℃ / ±2%
- Temp. Pre-alarm & Alarm
- Temp. Threshold/Difference/Rise Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Built-in Microphone
- Temp. Range: -20℃~150℃, Customizable: ≤550℃
- Interface: 1Audio In/Out, 2 Alarm In/Out, CVBS, RS485, Micro SD Card
- DC12V/AC24V/POE (802.3af)
- IP66

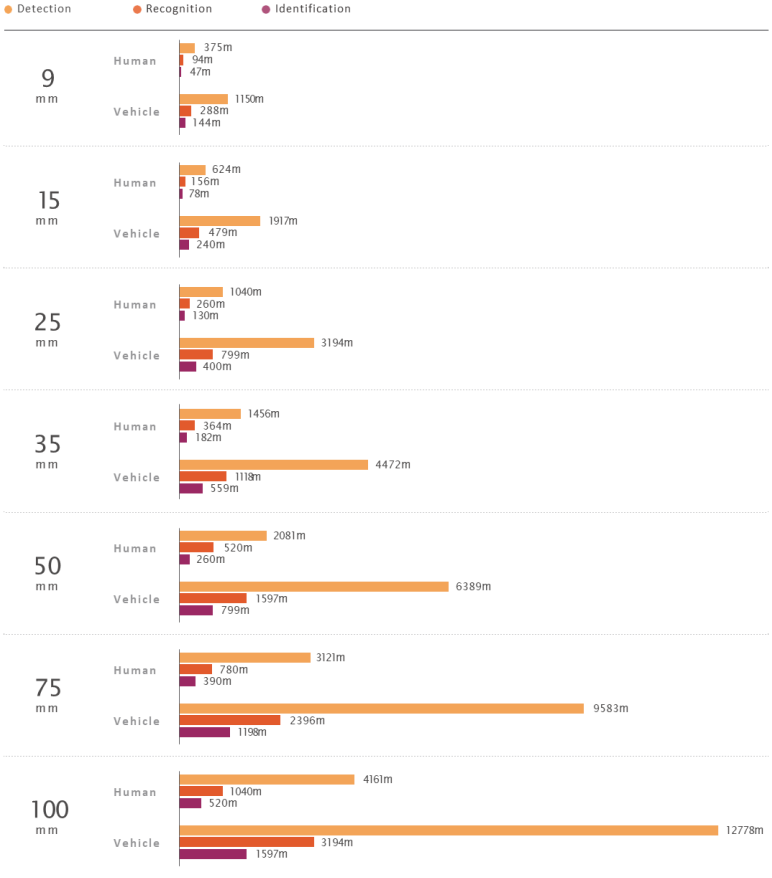
Application Scenarios

Perimeter Protection, Industrial Temperature Measuring...

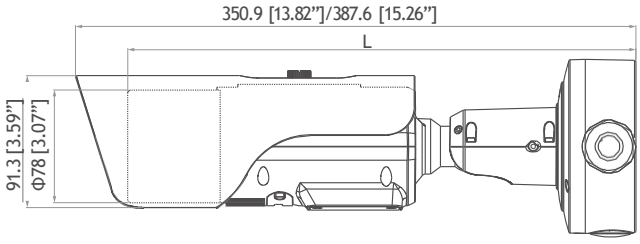
640x512

12 μm

Human: 1.8×0.5 m | Vehicle: 4×1.5 m



Dimensions (mm)



Accessories

Junction Box

SNCBK649B

Thermal & Optical Mini Bi-Spectrum PTZ Camera

SNTPT4233QFFM
SNTPT6436QFFM

400×300/640×512

Human Detection | Vehicle Detection | Smoke/Fire Detection | Temperature Accuracy | White LED

- Thermal: 640×512/400×300, 8/9/15/25 mm; Motorized Lens: 25 mm
- Optical: 4MP, 2592×1520, 30X, 5.3~159 mm
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Worm Gear and Worm Drive PTZ; Power off Self-locking
- Anti-frozen
- Pan: 360° Tilt: +90°~-90°
- White LED: 30 m
- Support 3 temperature measurement rule types (spot, line, area)
- Preset Point Temperature Measuring
- Temp. Accuracy: ±2°C / ±2%
- Temp. Range: -20°C~150°C, Customizable
- Interface: 1Audio In/Out, 1Alarm In/Out, CVBS, RS485
- DC24V
- IP66

Application Scenarios

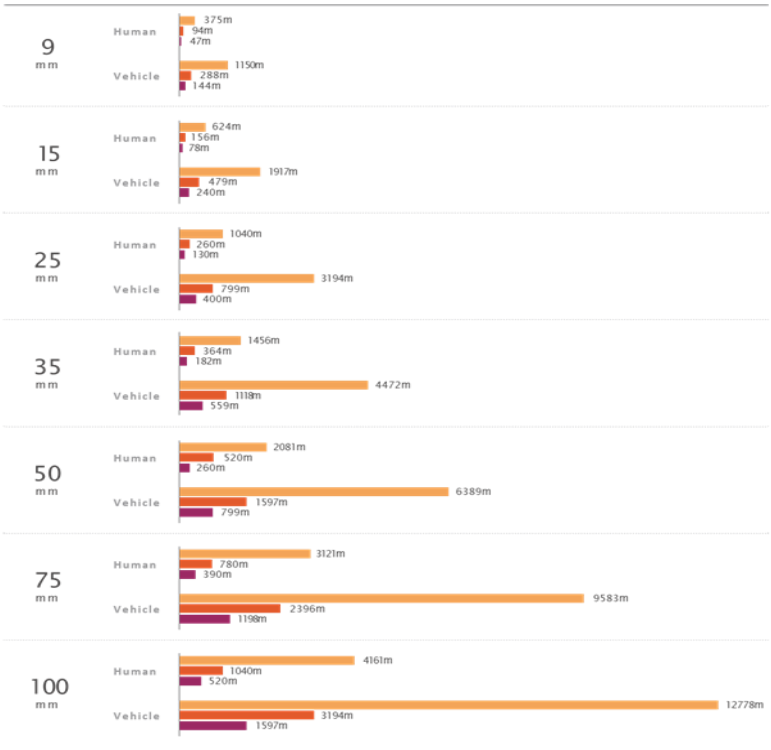
Perimeter Protection, Indoor Fire Prevention, Industrial Temperature Measuring...

640x512

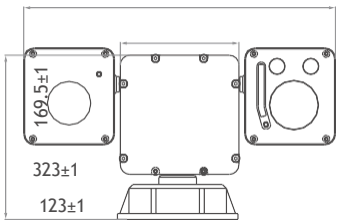
12 μm

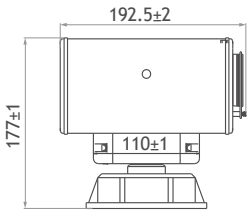
Human: 1.8×0.5 m

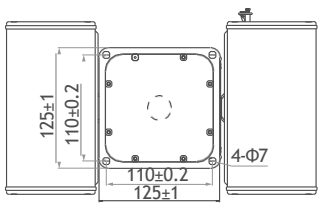
Vehicle: 4×1.5 m



Dimensions







Thermal & Optical Medium Bi-Spectrum PTZ Camera

SN-TPT6436LZFM
SN-TPT4233LZFM

Human Detection | Vehicle Detection | Ship Detection | Smoke/Fire Detection | Wiper

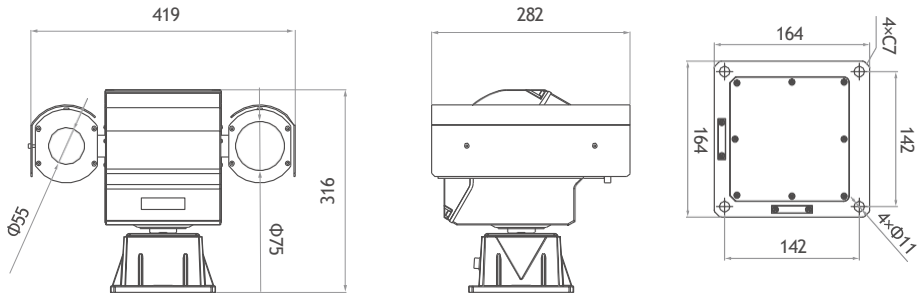
640×512/400×300

- Thermal: 640×512/400×300, 8/9/15/25/35/50 mm, Motorized Lens: 25/50 mm
- Optical: 4MP, 2592×1520, 30X, 5.3~159 mm
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Worm Gear and Worm Drive PTZ; Power off Self-locking
- Anti-frozen
- Pan: 360° Tilt: +90°~-90°
- Support 3 temperature measurement rule types (spot, line, area)
- Preset Point Temperature Measuring
- Temp. Accuracy: ±2°C / ±2%
- Temp. Range: -20°C~150°C, Customizable
- Interface: 2 Audio In/Out, 9 Alarm In/4 Alarm Out, CVBS, RS485
- DC36V
- IP66

Application Scenarios

Perimeter Protection, Indoor Fire Prevention, Industrial Temperature Measuring...

Dimensions (mm)



Thermal & Optical Medium Bi-Spectrum PTZ Camera

SNTPT4233LPZM
SNTPT6436LPZZ

Human Detection | Vehicle Detection | Ship Detection | Smoke/Fire Detection | Laser IR

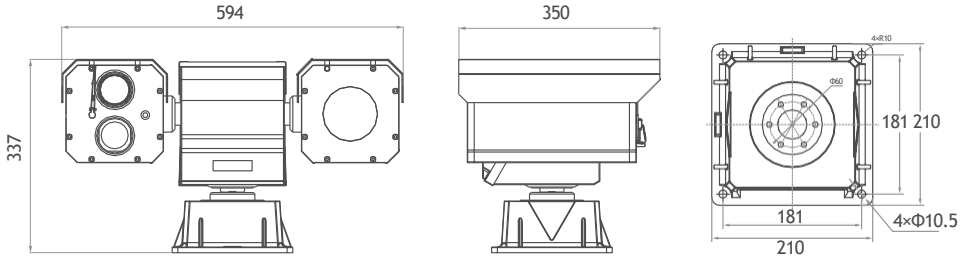
400×300/640×512

- Thermal: 400×300/640×512, Motorized Lens: 75/100 mm 26 to 105 MM
- Optical: 5MP, 2560×1920, 40x, 6.8~251 mm
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/Ship
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Worm Gear and Worm Drive PTZ; Power off Self-locking
- Anti-frozen
- Pan: 360° Tilt: +90°~-90°
- 800m IR
- Support 3 temperature measurement rule types (spot, line, area)
- Preset Point Temperature Measuring
- Temp. Accuracy: ±2°C / ±2%
- Temp. Range: -40°C~150°C, Customizable
- Interface: 2 Audio In/Out, 9 Alarm In/4 Alarm Out, CVBS, RS485
- DC36V MAX 150W
- IP66

Application Scenarios

Medium Perimeter Protection, Fire Prevention...

Dimensions (mm)



Thermal & Optical Medium Bi-Spectrum PTZ Camera

SN-TPT6436ZZM
SN-TPT4233ZZM

Human Detection | Vehicle Detection | Ship Detection | Smoke/Fire Detection | Wiper

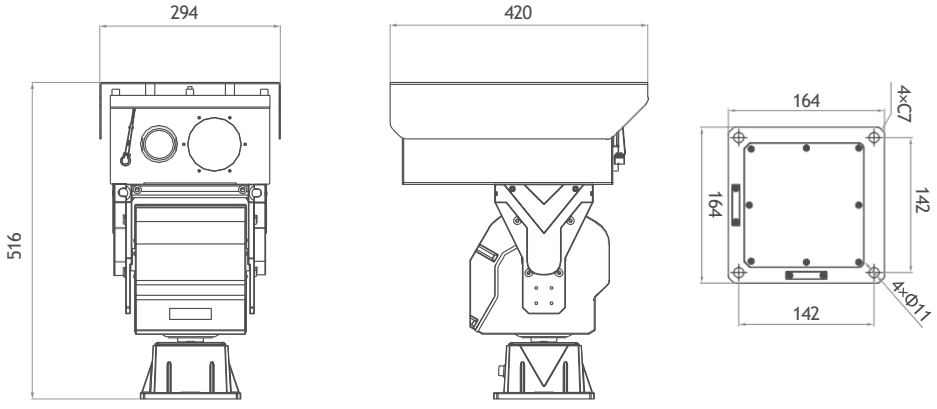
640×512/400×300

- Thermal: 640×512/400×300, Motorized Lens: 50/75/100 mm
- Optical:
  2MP, 1920×1080, 37X, 6~222 mm
  4MP, 2592×1520, 40X, 4.98~199.3 mm
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/Ship
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area
- Worm Gear and Worm Drive PTZ; Power off Self-locking
- Anti-frozen
- Pan: 360° Tilt: +40°~-75°
- Interface: 2 Audio In/Out, 9 Alarm In/4 Alarm Out, CVBS, RS485
- DC36V
- IP66

Application Scenarios

Medium Perimeter Protection, Fire Prevention...

Dimensions (mm)



Thermal & Optical Large Bi-Spectrum PTZ Camera

SN-TPT6436HZM
SN-TPT4233HZM

Parameters vary according to device models.

Human Detection | Vehicle Detection | Ship Detection | Smoke/Fire Detection | Wiper

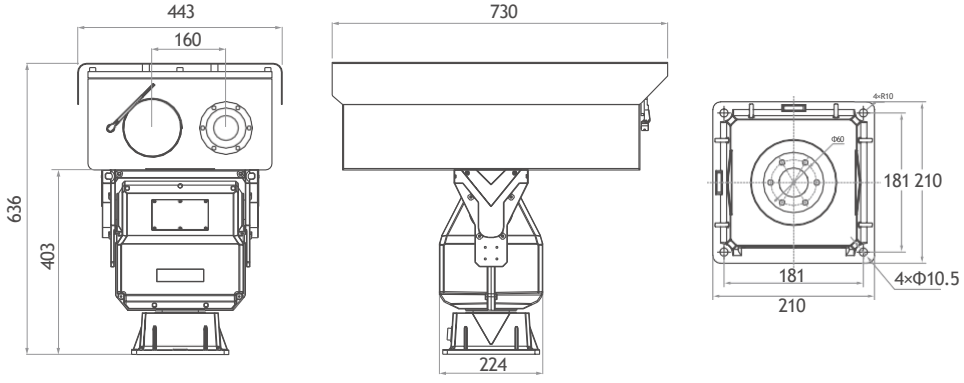
640×512/400×300

- Thermal: 640×512/400×300, Motorized Lens: 75/100mm, 30~150mm
- Optical:
  4MP, 2592×1520, 32X, 12.5~400 mm
  4MP, 2592×1520, 32X, 15.6~500 mm
  4MP, 2592×1520, 60X, 12.5~750 mm
  4MP, 2592×1520, 60X, 16.7~1000 mm
  4MP, 2592X1440, 86X, 10~860mm
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/Ship
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area
- Worm Gear and Worm Drive PTZ; Power off Self-locking
- Anti-frozen
- Pan: 360° Tilt: +40°~-45°
- Interface: 2 Audio In/Out, 3 Alarm In/Out, CVBS, RS485
- DC36V
- IP66

Application Scenarios

Medium Perimeter Protection, Fire Prevention...

Dimensions (mm)



Thermal & Optical Large Bi-Spectrum PTZ Camera

SNTPS4157ETF
SNTPS4157ETM
SNTPS6457ETM

Parameters vary according to device models.

Human Detection | Vehicle Detection | Ship Detection | Smoke/Fire Detection | Thermal 30-150mm

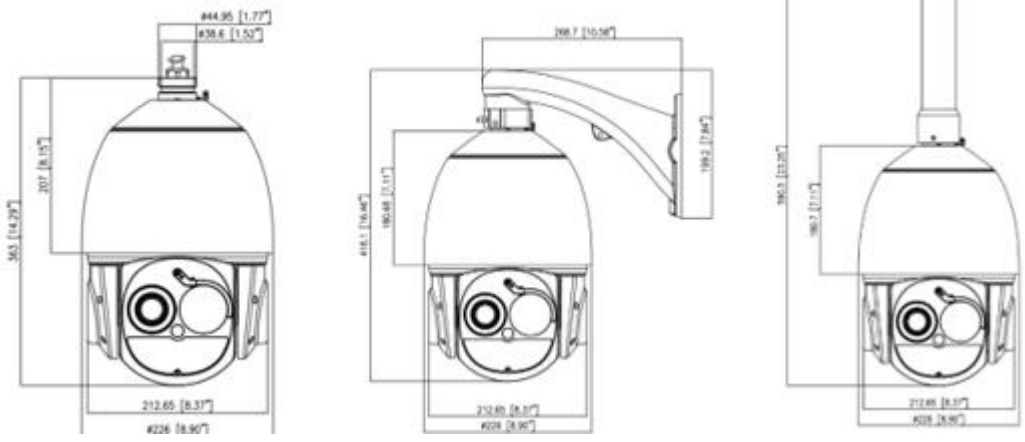
384×288/640×512

- Thermal: 384x288/ 640×512, Lens: 7/15/25mm
- Optical: 5MP, 2688×1520, 30x , 6.27~251mm
- Deep Learning: Human/Vehicle/Fire & Smoke/Fire Spot/Ship
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area
- Worm Gear and Worm Drive PTZ; Power off Self-locking
- Anti-frozen
- Pan: 360° Tilt: +40°~-75°
- Interface: 2 Audio In/Out, 6 Alarm In/ 4 Alarm Out, CVBS, RS485
- 36 VDC/PoE++ (802.3bt), Max. 45W
- IP66

Application Scenarios

Medium Perimeter Protection, Fire Prevention...

Dimensions (mm)



Explosion-proof Bullet Camera

SNTPH6436DAFM
SNTPH4203DAFM

Parameters vary according to device models.

Explosion Proof | Material | IVS | Temperature Accuracy | IP68

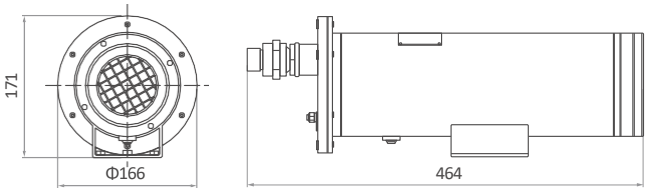
640×512/400×300

- 316L Stainless Steel
- Ex d II C T6 Gb / Ex tD A21 IP68 T80°C W
- Thermal: 640×512/400×300, 8/9/15/25/35/50 mm
  Motorized Lens: 25/50 mm
- Deep Learning: Human/Vehicle/Fire Spot/Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Temp. Pre-alarm & Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temp. Accuracy: ±2°C / ±2%
- Temp. Range: -20°C ~150°C (-4°F ~302°F), Customizable
- IP68

Application Scenarios

Perimeter Protection, Indoor/Outdoor Fire Prevention, Industrial Temperature Measuring…

Dimensions (mm)



Accessories

Wall Mount Bracket
SN-BK401-SS

Junction Box
SN-BK400

Flexible Tube

Gland Box

Explosion-proof Bi-spectrum PTZ Camera

SNTPT6436PAFM
SNTPT4233PAFM

Parameters vary according to device models.

Explosion Proof | Material | IVS | Temperature Accuracy | IP68

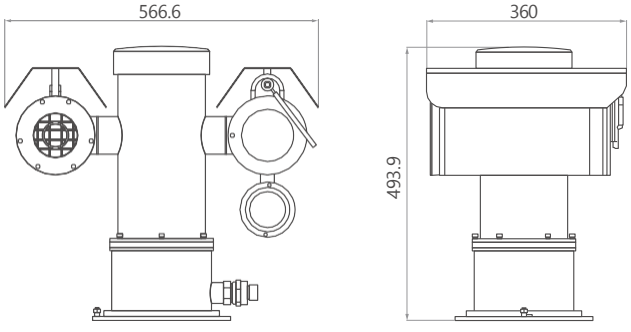
640×512/400×300

- 316L Stainless Steel
- Ex d IIC T6 Gb / Ex tD A21 IP68 T80°C
- Thermal: 640×512/400×300, 8/9/15/25/35/50 mm
  Motorized Lens: 25/50 mm
- Optical: 4MP, 2592×1520, 30X, 5.3 mm -159 mm
- Deep Learning: Human/Vehicle/Smoke & Fire/Fire Spot/Smoking
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Pan: 360° Tilt: +90°~-90°
- IR: 200 m
- Temp. Pre-alarm & Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temp. Accuracy: ±2°C / ±2%
- Temp. Range: -20°C ~150°C (-4°F ~302°F), Customizable
- IP68

Application Scenarios

Perimeter Protection, Indoor/Outdoor Fire Prevention, Industrial Temperature Measuring...

Dimensions (mm)



Accessories

Wall Mount Bracket
SN-BK402-SS

Junction Box
SN-BK400

Flexible Tube

Gland Box

Small Intelligent Thermal Module

SNTPC6406VTFM

Human Detection | Vehicle Detection | Ship Detection | Smoke/Fire Detection | Anti-burning

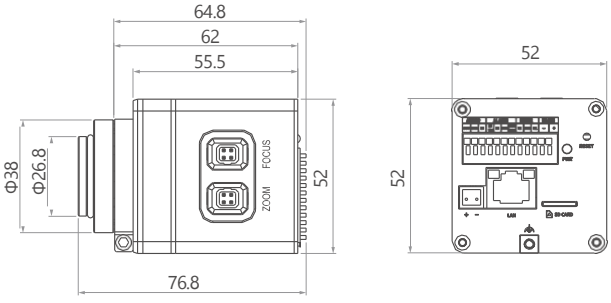
640 × 512

- Thermal: 640 × 512, 12μm, 12 μm, 9/15/25/35/50 mm
  Motorized Lens: 25/50/75/100 mm
  Motorized Zoom Optional
- Deep Learning: Human/Vehicle/Smoke & Fire/Fire Spot/Smoking/Ship
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Focus-free (Fixed Lens)
- Anti-burning
- Temp. Pre-alarm & Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temp. Accuracy: ±2℃ / ±2%
- Temp. Range: -20℃ ~150℃ (-4℉ ~302℉)Customizable: ≤550℃ (1022℉)
- Interface: Alarm I/O, Audio I/O, RS485, Micro SD card
- 64.8× 52 × 52 mm (2.55× 2.05 × 2.05 inch) without lens
- DC12V 3.6W

Application Scenarios

Suitable for equipment integration such as shields/ptz, inspection robots, track robots, etc.

Dimensions (mm)



Small Intelligent Thermal Module

SN-TPC4201VTFM

8~14 μm Long Wave

17 μm Pixel Pitch

±2℃ Temperature Accuracy

Anti-burning

Auto Focus

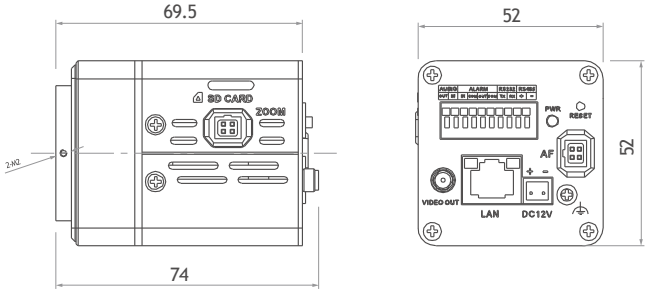
400 × 300

- Thermal: 400 × 300, 17μm, 8/9/15/25/35/50 mm
  Motorized Lens: 25/50/75/100 mm
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area, People Counting
- Anti-burning
- Temp. Pre-alarm & Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temp. Accuracy: ±2℃ / ±2%
- Temp. Range: -20℃ ~ 150℃ (-4℉ ~ 302℉)
  Customizable: ≤900℃ (1652℉)
- Interface: Alarm I/O, Audio I/O, RS485,CVBS, Micro SD card
- 74× 52 × 52 mm (2.91× 2.05 × 2.05 inch)
- DC12V 5W

Application Scenarios

Suitable for equipment integration such as shields/ptz, inspection robots, track robots, etc.

Dimensions (mm)



Intelligent Thermal Module

SNTPC4203ATFM
SNTPC4201ATFM

Human Detection | Vehicle Detection | Ship Detection | Smoke/Fire Detection | Anti-burning

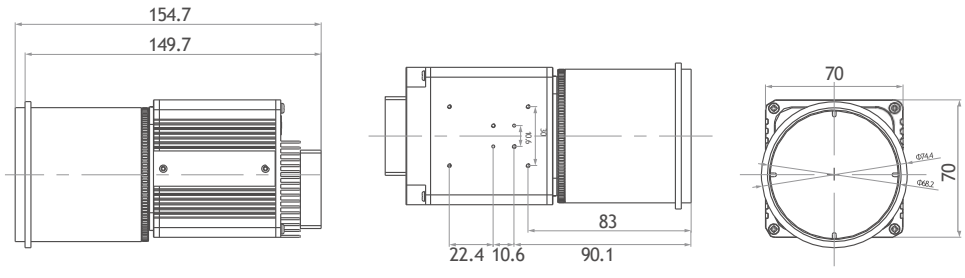
400×300

- Thermal: 400 × 300, 17μm, 8~14μm, 8/15/25/35/50 mm
  Motorized Lens: 25/50/75/100 mm
- Deep Learning: Human/Vehicle/Smoke & Fire/Fire Spot/Smoking/Ship
- IVS: Intrusion, Single/Double Line Crossing, Loitering, Wrong-way, Enter Area, Leave Area
- People Counting
- Anti-burning
- Temp. Pre-alarm & Alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temp. Accuracy: ±2℃ / ±2%
- Temp. Range: -20℃ ~ 150℃ (-4℉ ~ 302℉)
  Customizable: ≤900℃ (1652℉)
- Interface: Alarm I/O, Audio I/O, RS485, Micro SD card
- DC12V

Application Scenarios

Suitable for equipment integration such as shields/PTZ, inspection robots, track robots, etc.

Dimensions (mm)



Effective Coverage

The Johnson Criterion is the field of infrared thermography used to determine the minimum resolution required to detect objects. The Johnson Criteria levels for infrared thermography are as follows:

Detection: At least 1.5 pixels are required to distinguish objects in the background and in the image.
Recognition: At least 6 pixels are required to classify objects (people, vehicles, animals, etc.).
Identification: At least 12 pixels are required to identify an object and its features, for example, a human holding a wooden stick.

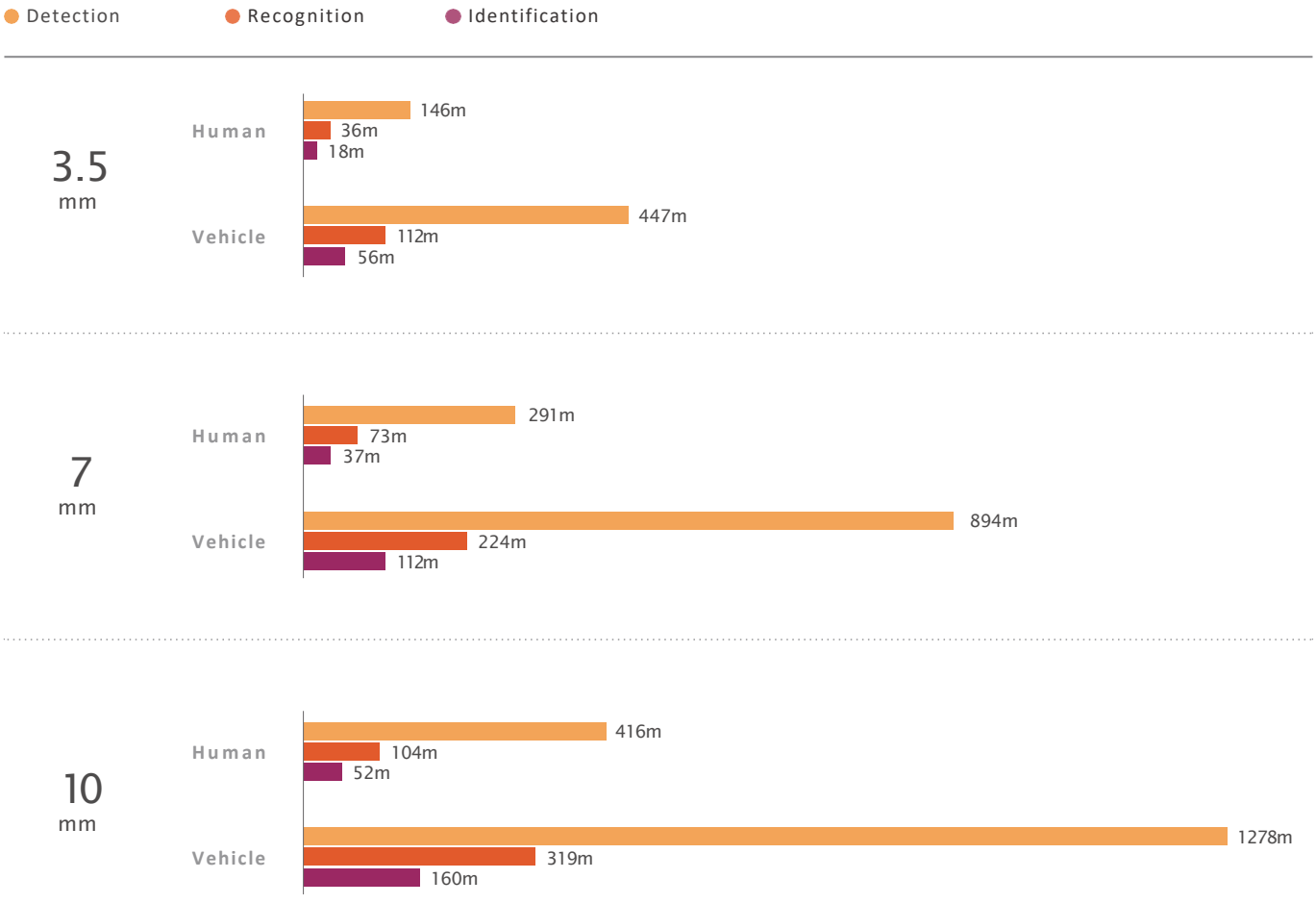
256x192

12 µm

Human: 1.8×0.5 m

Vehicle: 4×1.5 m

Fire: 1×1 m



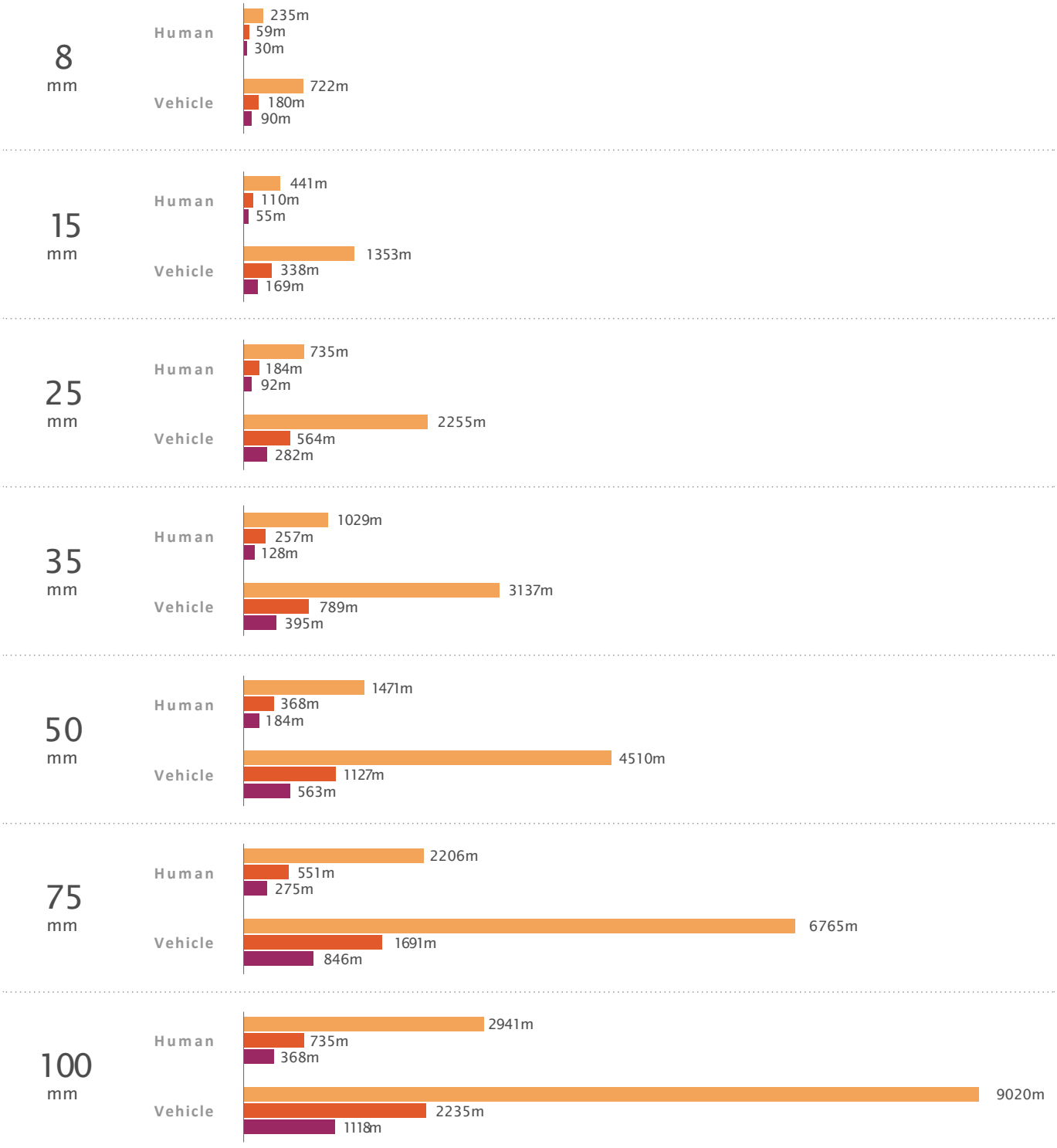
400x300

17 µm

Human:
1.8×0.5 m

Vehicle:
4×1.5 m

Detection Recognition Identification



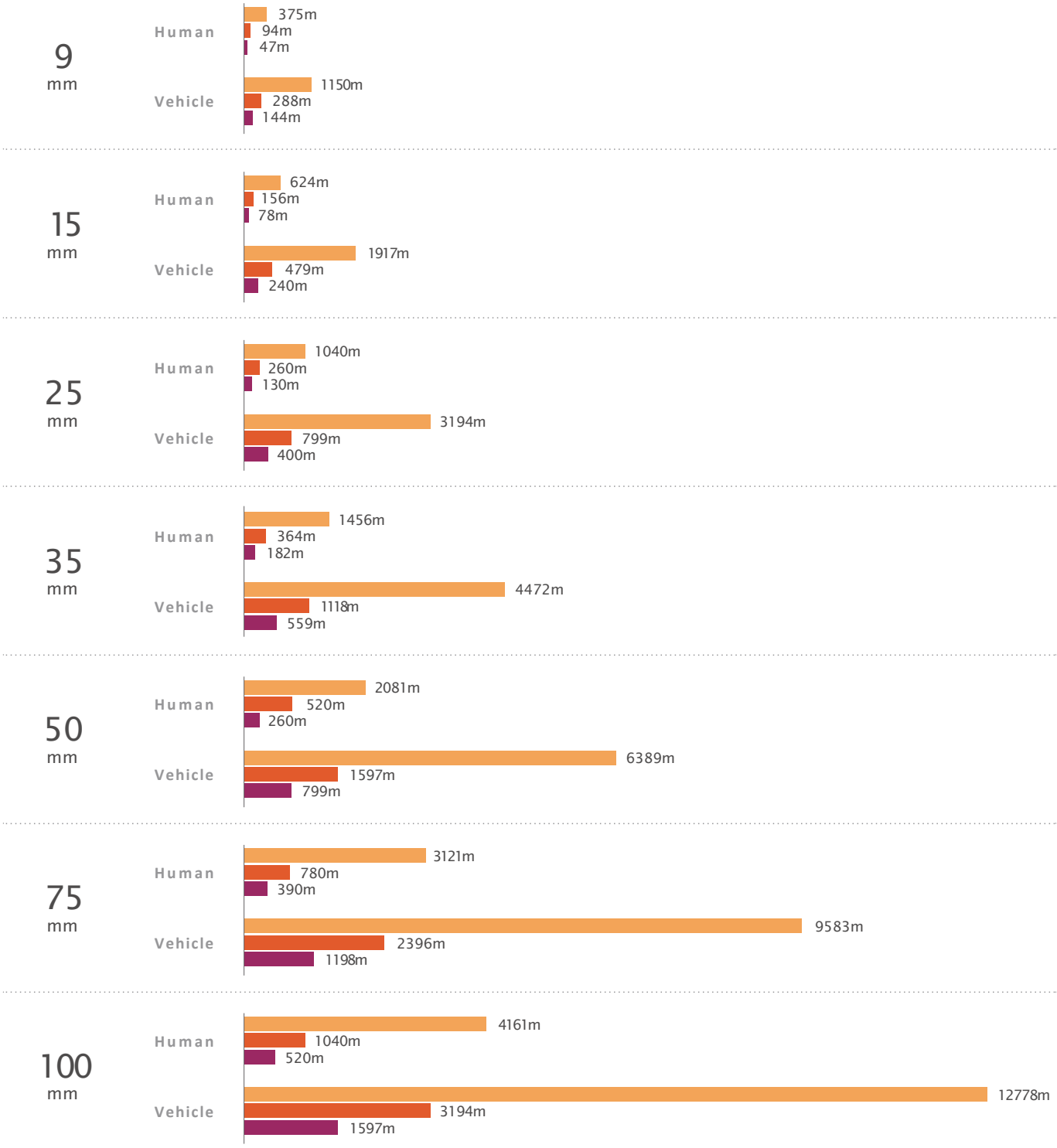
640x512

12 µm

Human:
1.8×0.5 m

Vehicle:
4×1.5 m

Detection Recognition Identification

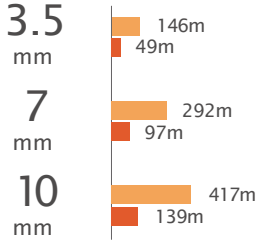


Fire Spot:
1×1 m

● Detection ● Recognition

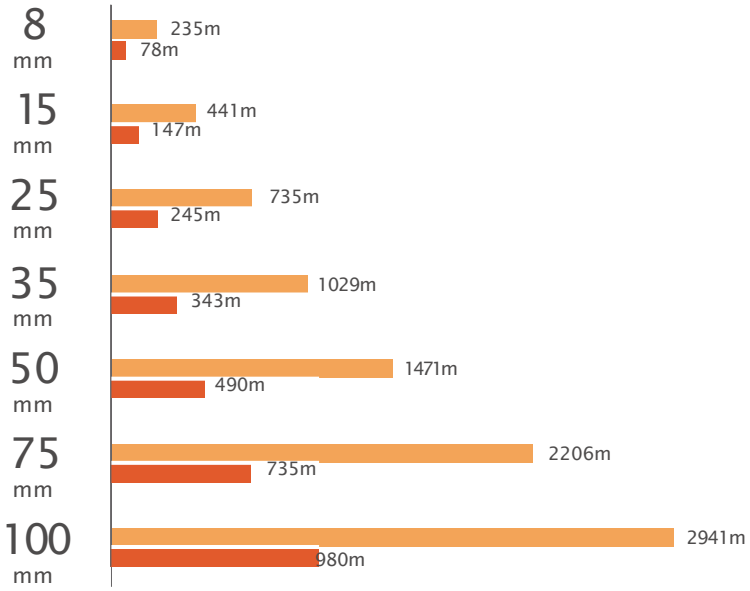
256x192

12 µm



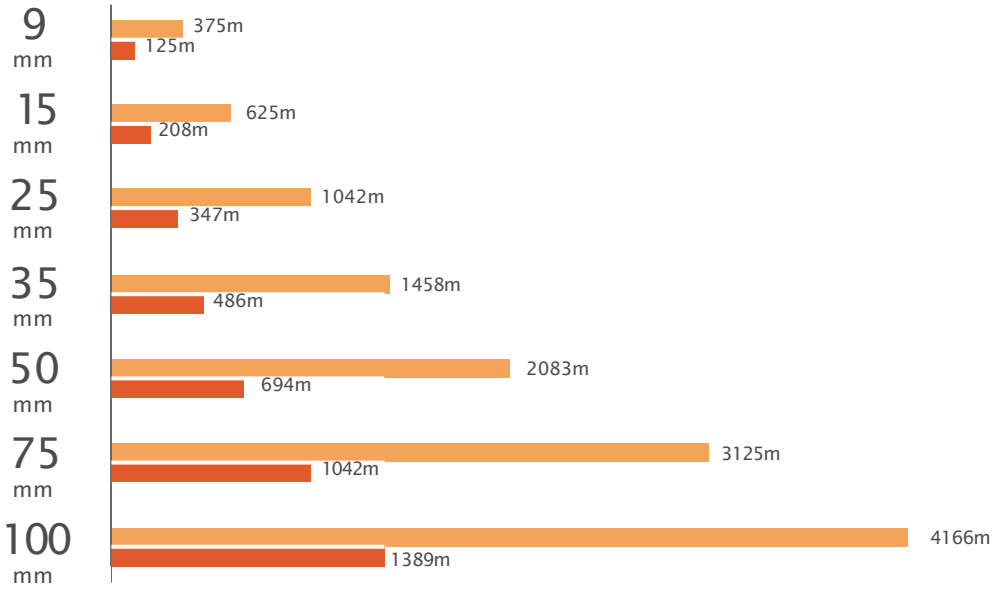
400x300

17 µm



640x512

12 µm



Smart Thermal Product Family

640

Module
SNTPC6406VTFM

Bullet
SNTPC6406KTF

Bi-spectrum PTZ
SNTPT6436QFFM

Bi-spectrum PTZ
SNTPT6436LZFM

Bi-spectrum PTZ
SNTPT6436ZZFM

Bi-spectrum PTZ
SNTPT6436HZFM

Bi-spectrum PTZ
SNTPS6457ETM

400

Module
TPC4201VTFM

Module
TPC4203ATFM
TPC4201ATFM

Bi-spectrum PTZ
TPT4233QFFM

Bullet
SNTPC4203KT
SNTPC4201KT

Bi-spectrum Bullet
SNTPC4233DJTF

Bi-spectrum PTZ
SNTPT4233LZFM

Bi-spectrum PTZ
SNTPT4233ZZFM

Bi-spectrum PTZ
SNTPT4233HZFM

Bi-spectrum PTZ
SNTPS4157ETF
SNTPS4157ETM

256

Bi-spectrum Cube
SND2L

Bi-spectrum Turret
SNTPC2553CTF

Bi-spectrum Bullet
SNTPC2553DRTF

Explosion Proof

Bullet
SNTPH6406DAFM
SNTPH4203DAFM

Bi-spectrum PTZ
SNTPT6436PAFM
SNTPT4233PAFM

Independent Development

Complete Category

Customized Service

2012
Year Founded

Offices:
Amsterdam-Leipzig
Warehouse:
Amsterdam – Leipzig

Certifications:
ISO9001 – ISO14001
ISO18001

18+
Employees

Sales:
Minimum 18 years experience(RSE)
Support:
Minimum 12 years Experience
Linux – Windows- API - SDK
Dev Ops:
Linux Certified Sysadm
Cisco CCNA I en II
Aries Certified server+
Microsoft MCSA/HTML5/CSCI certified partner
Redhat Certified Partner

NDAA- TAA
100% Realiable

Chinese Components
SOC NXP/Texas Instruments
Processor Sony IMX37
Tamron Lenses
Dillux Steel
Rigips screws

Production:
Taiwan – Vietnam – Germany
Firmware:
Controlled Malwarefree(Xebia)
Warranty:
Full coverage 7 Years(Insurance)

Real Safe
Products

SRTP Encryption
ENCRYPTION Key Management
Multi-factor authentication
Strong Password Policy
HTML5
802.1X Security
HTTPS
VPN
Malware free Firmware

Exclusive Partnerships

Limited partners in Europe
No internet sales
Stock for Partners
Low ODM/OEM possible

Support

Own firmware
Integration (API- SDK)
Side Surveys
Demo Truck for Roadshows
FAT – SAT Test

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