Stay Ahead of the Flames
Hikvision Thermal Products

HIKVISION®

HIKVISION®

ABOUT HIKVISION

An Industry Pioneer

Hikvision is an IoT solution provider with video as its core competency. Featuring an extensive and highly skilled R&D workforce, Hikvision manufactures a full suite of comprehensive products and solutions for a broad range of vertical markets. In addition to the security industry, Hikvision extends its reach to smart home tech, industrial automation, and automotive electronics industries to achieve its long-term vision. Hikvision products also provide powerful business intelligence for end users, which can enable more efficient operations and greater commercial success.

Global Operations

Hikvision has established one of the most extensive regional networks in the industry, comprising 66 international subsidiaries and branch offices to ensure quick responses to the needs of customers, users, and partners.

Core Technologies

Imaging Technology   Artificial Intelligence   Cloud Computing   Multi-Dimensional Perception   Big Data   Video Codec
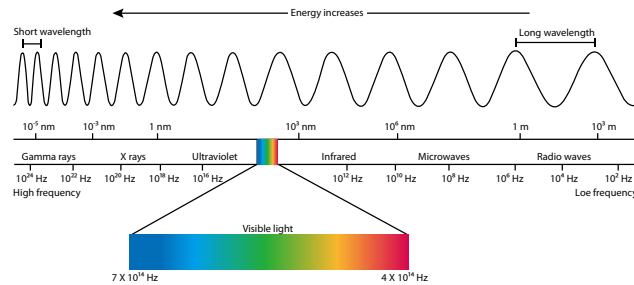
THE BASICS OF THERMAL CAMERAS

Each type of radiation has a unique wavelength.
Any object with a temperature above absolute zero can emit a detectable amount of infrared radiation. The higher an object's temperature, the more infrared radiation is emitted.

While invisible to human eyes, thermal cameras detect this kind of radiation (from wavelength 8 to 14 μm, or 8,000 – 14,000 nm) and produce images using temperature differences, making it possible to see the environment without visible light.

An infrared camera's effective range is what is meant by "seeing an object". Defined thresholds, known as Johnson's Criteria, refer to the minimum number of pixels necessary to either detect, recognize, or identify targets captured by scene imagers. The lower limits of detection, recognition, and identification (DRI), according to Johnson criteria are:

Detection: In order to distinguish an object from the background, the image must be covered by 1.5 or more pixels.

Recognition: In order to classify the object (animal, human, vehicle, boat, etc.), the image must have at least 6 pixels across its critical dimension.
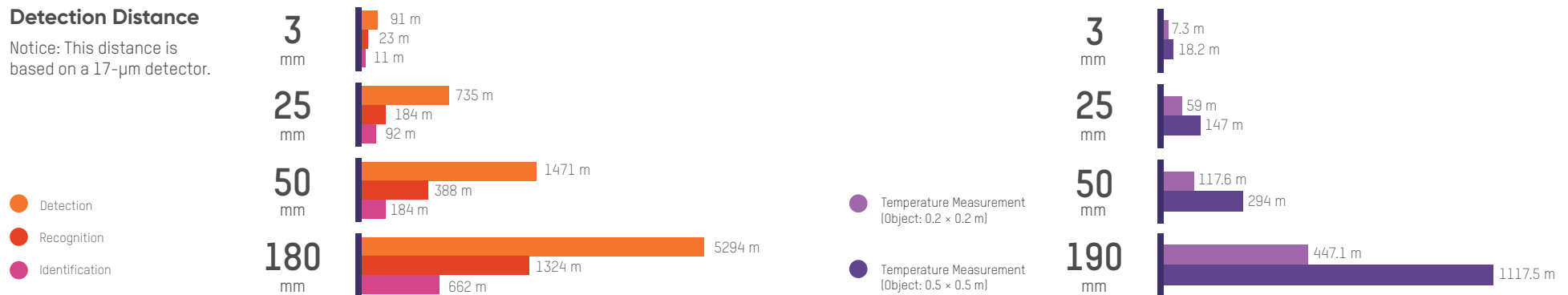
Identification: In order to identify the object and describe it in details, the critical dimension must be at least 12 pixels across.
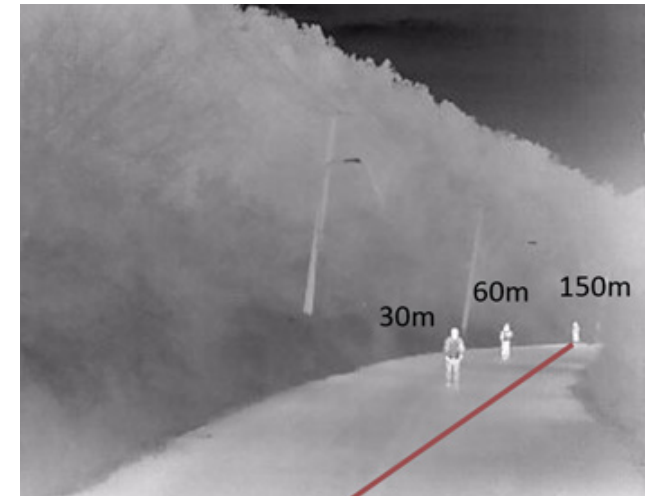
Detection, recognition and identification distances (with 8 mm lens)

Detection Distance

Notice: This distance is based on a 17-μm detector.

- Detection
- Recognition
- Identification

3 mm
- 91 m
- 23 m
- 11 m

25 mm
- 735 m
- 184 m
- 92 m

50 mm
- 1471 m
- 388 m
- 184 m

180 mm
- 5294 m
- 1324 m
- 662 m

- Temperature Measurement (Object: 0.2 × 0.2 m)
- Temperature Measurement (Object: 0.5 × 0.5 m)

3 mm
- 7.3 m
- 18.2 m

25 mm
- 59 m
- 147 m

50 mm
- 117.6 m
- 294 m

190 mm
- 447.1 m
- 1117.5 m

WHY DO WE USE THERMOGRAPHY CAMERAS
FOR TEMPERATURE MEASUREMENT?

Hikvision thermography cameras have been widely used in detecting temperature anomalies before a fire starts, finding hot spots and invisible defects on machinery or electrical systems that could indicate a potential problem. These cameras are also used for surveying areas that are hard to reach with conventional measurement tools.
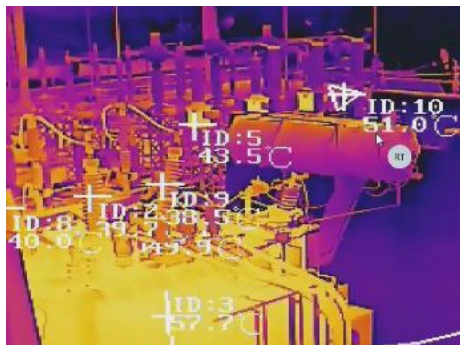
Detect Fire Risks Right Away

Hikvision thermography cameras can efficiently identify temperature anomalies with visualized images. When the surface temperature of an object is abnormal, the camera will immediately trigger the alarm for fast and accurate troubleshooting.

Get Accurate Temperatures Instantly

Through strict calibration and standardized testing procedures, Hikvision has established a temperature measurement model that offers high accuracy up to ±2 ° C or ±2% (whichever is greater), along with a wide range from 20 to 550° C (-4° F to 1,022° F).

Flexible measurement rules help create more sensing methods.

Real-Time Warnings

Identifies temperature anomalies within a few seconds to help protect your property.

Non-Contact Inspection
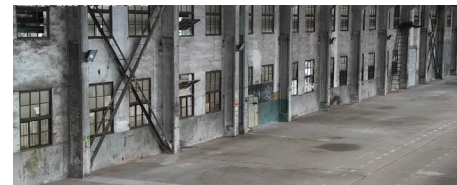
Prevents damage to facilities and operations while providing continuous monitoring.

Visualized Image
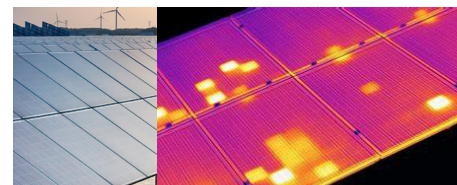
Presents heating distribution clearly to vizualize fire locations easily.

Hikvision Thermal Products

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SMALL-AREA FIRE PREVENTION

Indoors

Warehouses

Data Centers
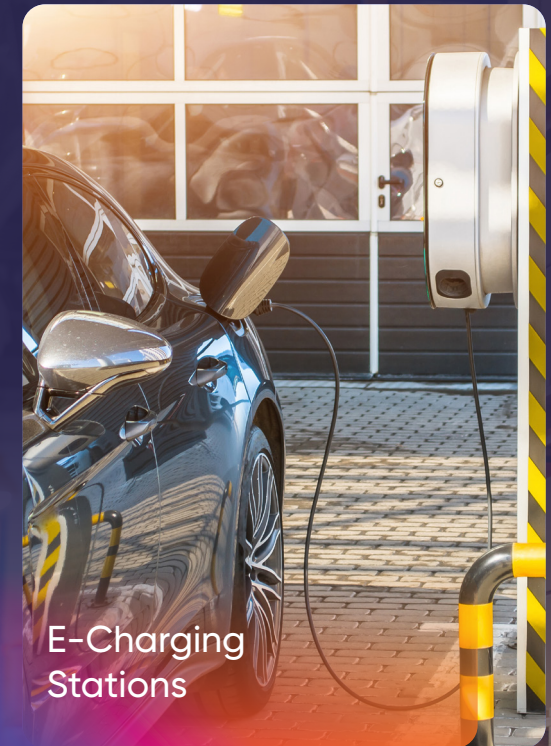

Factories

Battery Storage Factories
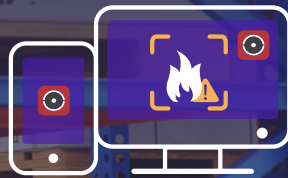
Outdoors

E-Charging Stations

4

Temperature Detectionn

Provides non-contact temperature measurement for fast and visible detection, so actions can be taken early enough to prevent a fire before the worst happens.

Light & Audio Warning

Detects threats in a timely manner and triggers a strobe light with customizable audio alarms.

HeatPro

MEDIUM-AREA FIRE PREVENTION

Forklift Filter

With the help of an AI algorithm, Hikvision thermography cameras recognize and ignore the heat from forklift engines to reduce unwanted alarms.

Sun Reflection

Our thermography cameras can analyze potential fire points. In the case of overexposure, the alarm will be filtered out.
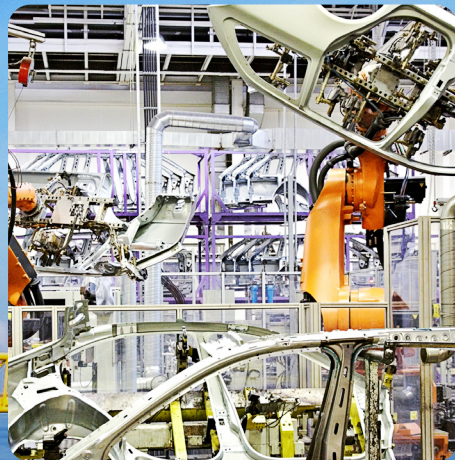
Certified
CNPP

HIKVISION

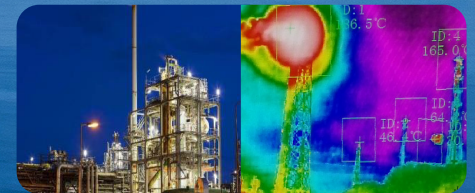Industrial Scenarios

Electrical

Manufacturing

Waste & Recycling

Energy

LARGE-AREA FIRE PREVENTION

Excellent for protection in natural areas, both public and private

Wide Coverage
Hikvision thermal PT cameras cover vast areas with fewer installation points for maximum cost reduction.

Stability
Since remote device replacement is difficult, Hikvision products are designed for maximum stability and durability.

Accuracy
Our solution boosts low false alarm rates and timely, accurate detections to reduce potential losses.

Timeliness
Our solution provides 24/7 monitoring and detects fires as early as possible, deploying patrol routes to shorten intervals.

Thermal Channel: Fire Source Detection
Thermal fire source detection algorithms locate suspicious heat sources. They compare temperatures between a target and environment to detect differences against the set threshold.

Optical Channel: Smoke Detection
Optical lenses in PTZ cameras deliver smoke detection as a supplement to thermal fire-source detection. Since smoke comes before fire, and fire may be covered by leaves or terrain, the smoke detection algorithm helps to locate hazards early.

National Forests

High-Value Plantations

Wildlife Parks

Large Resorts

HIKVISION

PRODUCT MODELS

DS-2TD2628T/QA

Thermographic Network
Bullet Camera

Thermal: 256 x 192, 12 µm, Optical: 2688 x 1520
Lens (Thermal): 3 / 7 mm
Lens (Optical): 4 / 6 mm
FOV (Thermal): 3 mm: 50.0 x 37.3°; 7 mm: 24.9 x
18.7°Audible Alert and Strobe Light
Temperature Exception / Anomaly
Temperature Exception Range: -20 to 150° C
Temperature Accuracy: ±8° C
Operating Temperature: -40 to 65° C
(-40 to 149° F)
IP67

DS-2TD1228T/QA

Thermographic Network
Turret Camera

Thermal: 256 x 192, 12 µm, Optical: 2688 x 1520
Lens (Thermal): 2 / 3 mm
Lens (Optical): 2 / 4 mm
FOV (Thermal): 2 mm: 90.0 x 65.4°; 3 mm: 50.0 x
37.3°Audible Alert and Strobe Light
Temperature Exception / Anomaly
Temperature Exception Range: -20 to 150° C
Temperature Accuracy: ±8° C
Operating Temperature: -40 to 65° C
(-40 to 149° F)
IP66

DS-2TD3017T

Thermographic Network
Cube Camera

Thermal: 160 x 120, 17 µm; Optical: 1600 x 1200
Lens (Thermal): 2 / 3 mm
Lens (Optical): 2 mm
FOV (Thermal): 2 mm: 90.0 x 66.4°; 3 mm: 50.0 x
37.2°Audible Alert and Strobe Light
Temperature Exception / Anomaly
Temperature Exception Range: -20 to 150° C / 20 to 550°
C
 Temperature Accuracy: ±2° C or 2%
Operating Temperature: -20 to 50° C
(-4 to 122° F)
IP66

HM-TD2037T-4X/7X/10X

Thermographic Network
Automation Camera

Thermal: 384 x 288, 17 µm
Lens (Thermal): 4 / 7 / 10 mm
FOV: 4 mm: 90 x 65.2°; 7 mm: 60 x 44.1°; 10 mm: 37.5 x
28.5°
Temperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: 1 ch. of input (0-3.3 VDC)
Alarm Output: 1 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: From -20 to 50° C (-40 to 149° F);
Humidity: 90% or less
IP40

DS-2TD2137T-4P/7P

Thermographic Network
Bullet Camera

Thermal: 384 x 288, 17 µm
Lens: 4 / 7 mm
FOV: 4 mm: 90 x 65.3°; 7 mm: 60 x 44.1°
VCA: Line crossing / Intrusion / Region entry & exit
Temperature Exception / Anomaly
Temperature Exception Range:
-20° C to 550° C (-4 to +1,022° F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: 2 ch. of inputs (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65° C (-40 to 149° F)
IP67

DS-2TD2167T-7/P

Thermographic Network
Bullet Camera

Thermal: 640 x 512, 17 µm
Lens: 7 mm
FOV: 7 mm: 88.5 x 73.2°
VCA: Line crossing / Intrusion / Region entry & exit
Temperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2°C, ±2%)
Alarm Input: 2 ch. of inputs (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65° C (-40 to 149° F)
IP67

DS-2TD2637T-10P/15P

Thermographic Network
Bullet Camera

Thermal: 384 x 288, 17 µm, Optical: 2688 x 1520
Lens: 10 / 15 mm
FOV: 10 mm: 37.5 x 28.5°; 15 mm: 42.5 x 33.6°
VCA: Line crossing / Intrusion / Region entry & exit
Temperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: 2 ch. of inputs (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65° C (-40 to 149° F)
IP67

DS-2TD2667T-15/P

Thermographic Network
Bullet Camera

Thermal: 640 x 512, 17 µm, Optical: 2688 x 1520
Lens: 15 mm
FOV: 15 mm: 42.5 x 33.6°
VCA: Line crossing / Intrusion / Region entry & exit
Temperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: 2 ch. of inputs (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65° C (-40 to 149° F)
IP67

HM-TD2067T-6/X

Thermographic Network
Automation Camera

Thermal:: 640 512, 17 µm
Lens (Thermal): 6 mm
FOV: 6 mm: 88.5 x 73.2°
Temperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: 1 ch. of input (0-3.3 VDC)
Alarm Output: 1 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: From -20 to 50° C (-40 to 149° F);
Humidity: 90% or less
IP40

DS-2TD4228T-10/W

Network Bi-Spectrum
Speed Dome

Thermal: 256 x 192 12 µm
Optical: 2688 x 1520
Lens (Thermal): 10 mm; Optical: 4.8-153 mm, 32X
FOV: 10 mm: 18 x 13.5°
VCA: Line crossing / Intrusion / Region entry & exit
Temperature Exception / Anomaly
Temperature Exception Range:
-20 to 550°C (-4 to +1,022°F)
Temperature Accuracy: Max (±2°C, ±2%)
Alarm Input: Up to 7 ch. of input (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65°C (-40 to 149° F)
IP66

DS-2TD4237T-10/V2

Network Bi-Spectrum
Speed Dome

Thermal: 384 x 288, 17 µm,
Optical: 1920 x 1080
Lens (Thermal): 10 mm; Optical: 4.8-153 mm
FOV: 10 mm: 37.7 x 28.7°
VCA: Line crossing / Intrusion / Region entry & exit
Temperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: Up to 7 ch. of input (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65°C (-40 to 149°F)
IP66

DS-2TD4137T-9W/25W

Network Bi-Spectrum
Speed Dome

Thermal: 384 x 288, 17 µm,
Optical: 2688 x 1520
Lens (Thermal): 9 / 25 / 50 mm; Optical: 6–240 mm
FOV: 9 mm: 37.9 x 28.7 °; 25 mm: 14.9 x 11.2 °;
VCA: Line crossing / Intrusion / Region entry & exit
Temperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: Up to 7 ch. of input (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65°C (-40 to 149°F)
IP66

DS-2TD4167T-9W/25W

Network Bi-Spectrum
Speed Dome

Thermal: 640 x 512, 17 µm
Optical: 2688 x 1520
Lens (Thermal): 9 / 25 mm; Optical: 6–240 mm
FOV: 9 mm: 72.0 x 56.1°; 25 mm: 24.5 x 19.7 °
VCA: Line crossing / Intrusion / Region entry & exit
Temperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: Up to 7 ch. of input (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65°C (-40 to 149°F)
IP66

DS-2TD5537T-W

Bi-spectrum
Mini PTZ Camera

Thermal: 384 x 288, 17 µm,
Optical: 2560 x 1440
Thermal: 7 / 15 / 25 mm, Optical: 5~160 mm
FOV: 7 mm: 54.8° (H) x 42.5°(V) / 15 mm: 24.55° (H) x
18.54°(V) / 25 mm: 24.9° (H) x 20°(V)
VCA: Line crossing / Intrusion / Region entry &
exitTemperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: 2 ch. of input (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65°C (-40 to 149° F)
IP66

DS-2TD6237T-W

Network Bi-Spectrum
Positioning System

Thermal: 384x288, 17 µm,
Optical: 2688 x 1520
Thermal: 25 / 50 mm,Optical: 6–240 mm
FOV: 25 mm:14.88 x 11.19°; 50 mm: 7.47 x 5.61°
VCA: Line crossing / Intrusion / Region entry &
exitTemperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: Up to 7 ch. of input (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65°C (-40 to 149° F)
IP66

DS-2TD6267T-25H4LW/50H4LW

Network Bi-Spectrum
Positioning System

Thermal: 640 x 512, 17 µm,
Optical: 2688 x 1520
Lens (Thermal): 9 / 25 mm, Lens (Optical): 6-240 mm
FOV: 25 mm: 24.55° x 19.75°; 50 mm: 12.42 x 9.95°
VCA: Line crossing / Intrusion / Region entry &
exitTemperature Exception / Anomaly
Temperature Exception Range:
-20 to 550° C (-4 to +1,022°F)
Temperature Accuracy: Max (±2° C, ±2%)
Alarm Input: Up to 7 ch. of input (0-5 VDC)
Alarm Output: 2 ch. of relay outputs, alarm response
actions configurable
Operating Temperature: -40 to 65° C (-40 to 149°F)
IP66

DS-2TD8167-ZC(E/G)F(L)W(Y)

Network Bi-Spectrum Positioning System

Thermal : 640 × 512, 17 μm
Optical : -C: 2688 × 1520 / -E: 1920 × 1080
Lens (thermal) : 150 / 190 / 230 mm
Lens (optical) : C (6.7-330 mm) / E (12.5-775 mm) / G (16.7-1000 mm)
FOV: 150 mm: 20.56° × 16.51° / 190 mm: 17.19° × 13.79° / 230 mm: 26.61° × 21.43°
VCA: Line crossing / Intrusion / Region entrance / Region exitingTemperature Exception
Temperature Exception Range : -20 to 150°C
Temperature Accuracy : ±8°C
Working Temperature : -40°C to 65°C (-40° F to 149° F)
Anti-corrosion Coating (PY)
IP66

DS-2TD2528T/Q

Thermography Explosion-proof Bullet

Thermal : 256 × 192, 12 μm
Optical : 2688 × 1520
Lens (thermal) : 3 / 7 / 10 mm
Lens (optical) : 3.3 / 4 / 8 mm
FOV: 3 mm: / 7 mm: / 10 mm: 50.0° × 37.3° / 24.9° × 18.7° /18°× 13.5° (H × V)
Temperature Exception Range : -20°C to 550°C (-4°F to 1,022°F)
Temperature Accuracy : Max (± 2°C, ± 2%)
Working Temperature : -40°C to 60°C (-40°F to 140°F), 90% or less
IP68 Standard

DS-2TD2537T/Q

Thermography Explosion-proof Bullet

Thermal : 384 × 288, 17 μm
Optical : 2688 × 1520
Lens (thermal) : 10 / 15 mm
Lens (optical) : 4 / 4 mm
FOV: 10 mm: / 15 mm: 37.9° × 28.7° / 24.2° × 18.4° (H × V)
Temperature Exception Range : -20°C to 550°C (-4°F to 1,022°F)
Temperature Accuracy : Max (± 2°C, ± 2%)
Working Temperature : -40°C to 60°C (-40°F to 140°F), 90% or less
IP68 Standard, ATEX, IECEx

DS-2TD6567T-H4LX/W

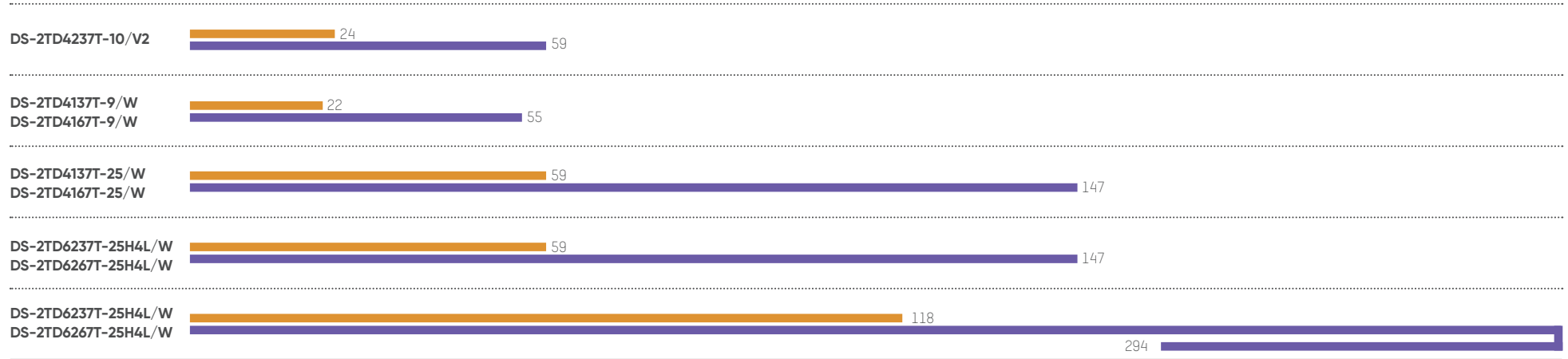**Thermography Explosion-proof Positioning system**

Thermal : 640×512, 17 μm
Optical : 2688 × 1520
Lens (thermal) : 25/ 50 mm
Lens (optical) : 5.7-205.2mm, 36X
FOV: 25 mm: / 50 mm: 24°×19°/12.12.4°×10° (H × V)
Temperature Exception Range : -20°C to 550°C (-4°F to 1,022°F)
Temperature Accuracy : Max (± 2°C, ± 2%)
Working Temperature : -40°C to 60°C (-40°F to 140°F), 90% or less
IP68 Standard, ATEX, IECEx

Effective Coverage

Small & Medium Area Fire Prevention

■ Temperature Measurement (Object: 0.2 × 0.2 m)   ■ Temperature Measurement (Object: 0.5 × 0.5 m)

Model	Object: 0.2 × 0.2 m	Object: 0.5 × 0.5 m
DS-2TD1228T-2/QA	7.0	17.5
DS-2TD1228T-3/QA DS-2TD2628T-3/QA	12	30
DS-2TD1228T-7/QA DS-2TD2628T-7/QA	23	57.5
HM-TD2037T-4X DS-2TD2137T-4/P	10.4	25.9
DS-2TD2637T-15/P DS-2TD2667T-15/P	35.3	88.2
HM-TD2037T-6X	14.6	36.5
HM-TD2037T-7X DS-2TD2137T-7/P DS-2TD2167T-7/P	15.3	38.2
HM-TD2037T-10/X DS-2TD2637T-10/P	22.8	57.1
DS-2TD4228T-10/W	32	81

DS-2TD4237T-10/V2 — 24 / 59

DS-2TD4137T-9/W
DS-2TD4167T-9/W — 22 / 55

DS-2TD4137T-25/W
DS-2TD4167T-25/W — 59 / 147

DS-2TD6237T-25H4L/W
DS-2TD6267T-25H4L/W — 59 / 147

DS-2TD6237T-25H4L/W
DS-2TD6267T-25H4L/W — 118 / 294

Effective Coverage

Large Area Fire Prevention

- Fire Detection (Object: 1 × 1m)
- Temperature Measurement (Object: 2 × 2m)
- Smoke Detection (Object: 5× 5m)

DS-2TD6267-75C4L/W — 2205m / 4410m / 16500m

DS-2TD6267-100C4L/W — 2940m / 5880m / 16500m

DS-2TD8167-150ZC4F/W — 4410m / 8820m / 35750m

DS-2TD8167-190ZE2F/W — 5292m / 10580m / 35750m

DS-2TD8167-230ZG2F/W — 6762m / 13520m / 50000m

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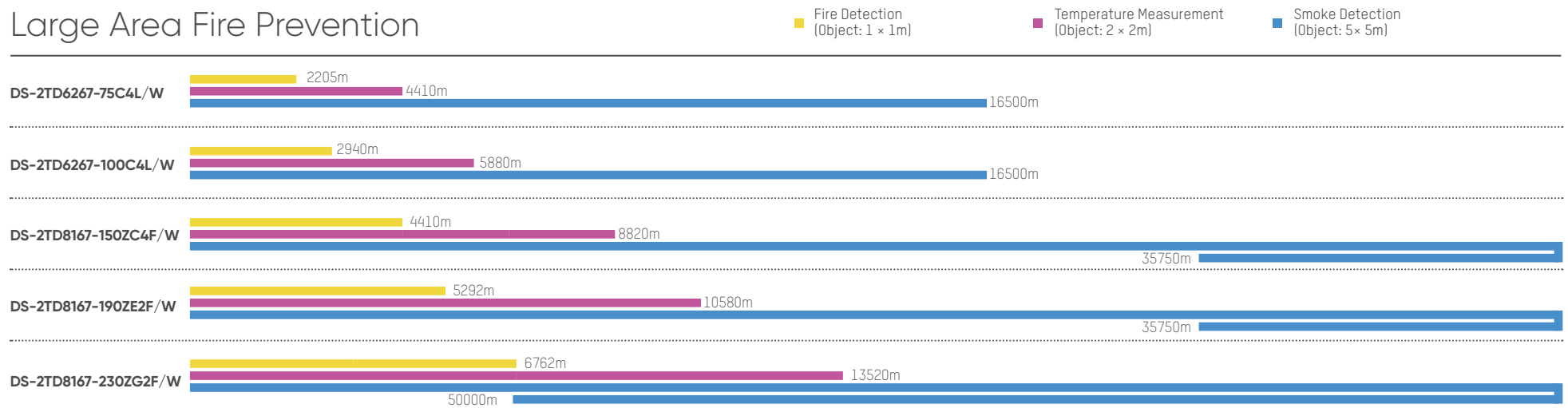
Stay Ahead of the Flames
Hikvision Thermal Products

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