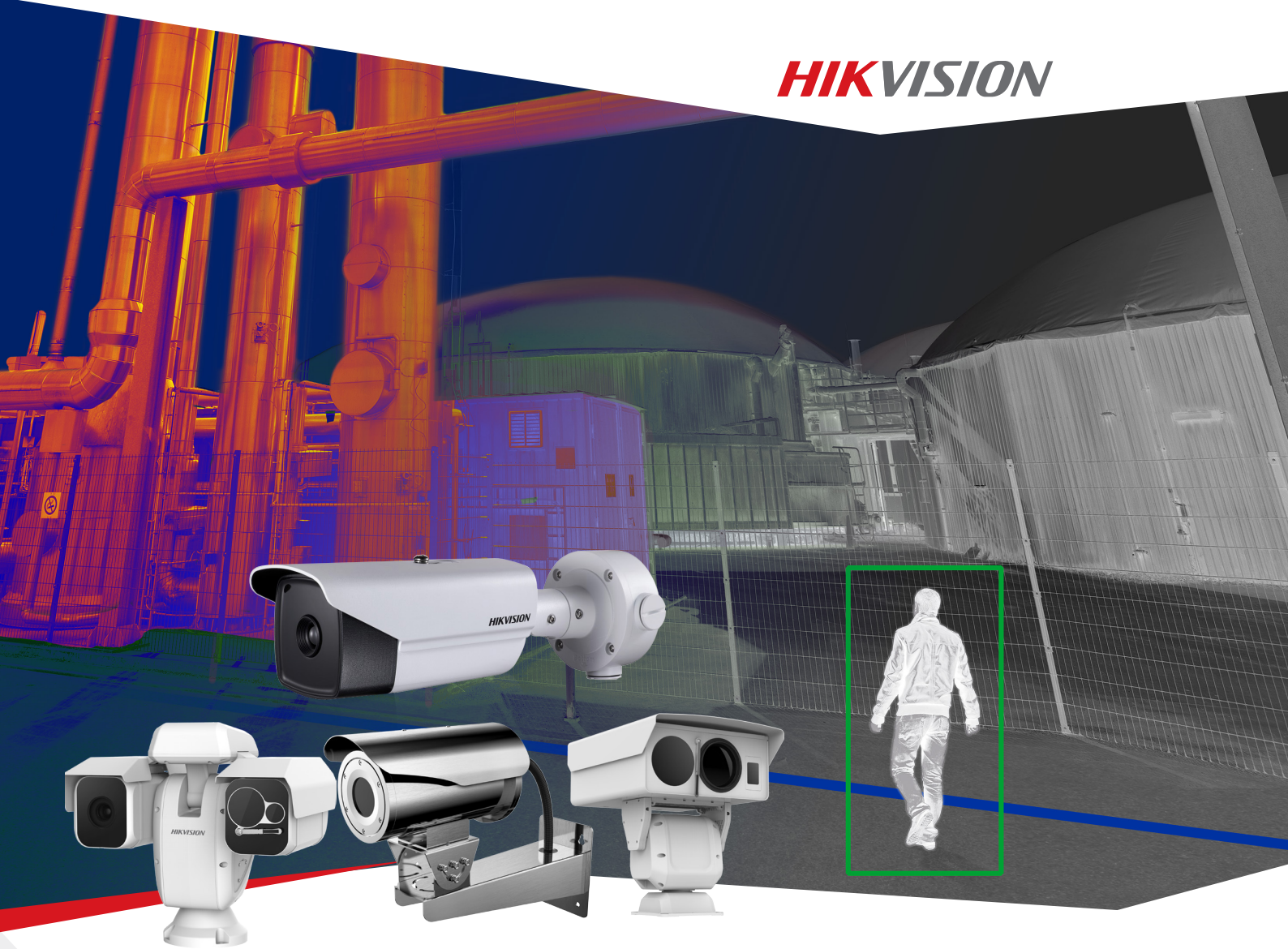


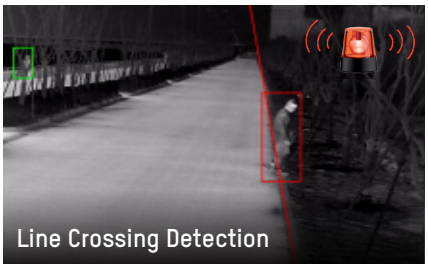
HIKVISION THERMAL CAMERAS
SEEING THE UNSEEN

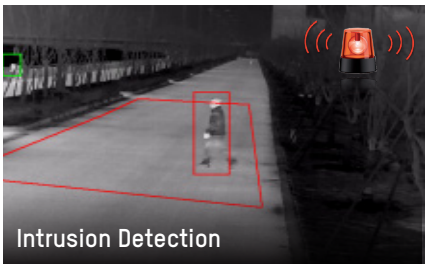
All objects with a temperature above absolute zero emit thermal radiation, even at low levels. This kind of radiation, invisible to the human eye, can be detected by thermal imaging sensors. Thermal cameras can produce images in the visual spectrum by detecting temperature differences between an object and its surroundings. The larger the difference, the bigger the contrast variety, making details visible. Compared to visible-light cameras, thermal cameras can be used for applications in more challenging environments.

smart 2.0

ADVANCED DETECTION ABILITY

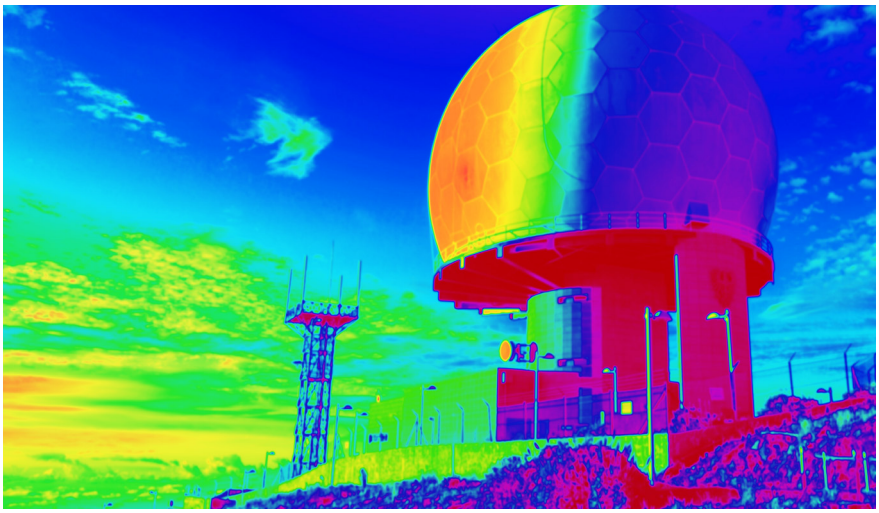
Integrated with intelligent video applications, such as line crossing and intrusion detection, these cameras can automatically trigger an alert and at the same time trigger a traditional pan / tilt / zoom camera to supply pertinent video to an operator.
This application becomes especially effective in perimeter protection and area surveillance applications.





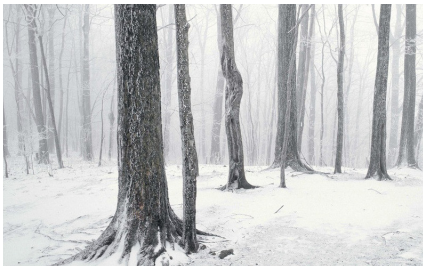
TEMPERATURE MEASUREMENT

Thermal cameras can monitor temperatures of specified objects; if temperatures exceed or fall below a certain limit, an alarm will be triggered. They can also track highlighted temperature-spans in an image through isothermal palettes. This enables an interpretation of events in a scene. Thermal cameras are the ideal choice for the prevention of fires, equipment over-heating, damage caused by freezing, and many other hazards.



EXCELLENT ENVIRONMENTAL ADAPTABILITY

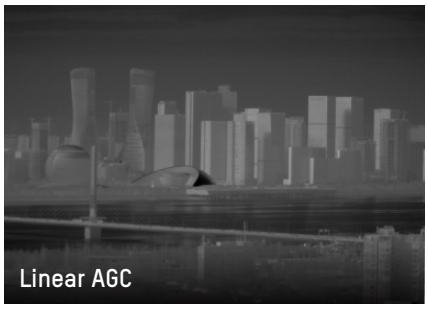
Thermal sensors are only slightly affected by changing light conditions, total darkness, or other challenging weather, such as rain, fog or snow. This makes thermal cameras a perfect platform on which to build more efficient, 24/7 surveillance systems.

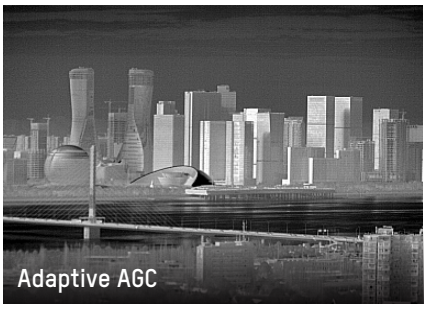


HIKVISION'S THERMAL TECHNOLOGY ADVANTAGES

AUTO GAIN CONTROL (AGC):

Adjusts the dynamic range of an image & retains permeability.
"Adaptive" AGC – a feature of Hikvision thermal cameras – is a more advanced algorithm than "linear" AGC, found in other manufacturers' cameras.





DIGITAL DETAIL ENHANCEMENT (DDE):

Based on an enhanced algorithm for a region of interest, ensures images display more details.

3D DIGITAL NOISE REDUCTION (DNR):

Through noise reduction processing of the original signal, hot pixels are minimized, rendering more refined images.

WIDE COVERAGE RANGE FOR ANY APPLICATIONS

Pixel Pitch = 25 μm

Lens (Focus)	25 mm	50 mm	75 mm
Detection Range (Vehicles)	1500 m	3000 m	4500 m
Detection Range (Humans)	500 m	1000 m	1500 m
Recognition Range (Vehicles)	380 m	750 m	1000 m
Detection Range (Humans)	125 m	250 m	375 m
Identification Range (Vehicles)	190 m	380 m	575 m
Identification (Humans)	60 m	125 m	180 m

Applicable Models: DS-2TD2235D-25/50; DS-2TD4035D-25/50; DS-2TD6135-50B2L/75B2L; DS-2TD6135T-25A2L/50A2L

Pixel Pitch = 17 μm

Lens (Focal length)	10 mm	15 mm	25 mm	35 mm	50 mm	75 mm
Detection Range (Vehicles)	900 m	1350 m	2250 m	3150 m	4500 m	6750 m
Detection Range (Humans)	290 m	440 m	735 m	1000 m	1470 m	2200 m
Recognition Range (Vehicles)	225 m	335 m	560 m	785 m	1125 m	1690 m
Detection Range (Humans)	70 m	110 m	180 m	255 m	365 m	550 m
Identification Range (Vehicles)	110 m	165 m	280 m	395 m	560 m	860 m
Identification (Humans)	35 m	55 m	90 m	125 m	180 m	275 m

Applicable Models: DS-2TD2136-10/15/25; DS-2TD2166(T)-15/25/35; DS-2TD6166-50B2L/75B2L; DS-2TD6166T-25A2L/50A2L
Ranges are calculated according to Johnson's criteria in good weather conditions

A COMPLETE RANGE OF THERMAL PRODUCTS

Combining self-developed thermal imaging technology with Hikvision's extensive experience in the video surveillance field, we are equipped to provide a full range of thermal products – all of which are able to meet our customers' various requirements. The single-lens bullet cameras provide an economical total cost of ownership, and the dual-lens products – bullet cameras, speed domes, and positioning systems – offer pan & tilt flexibility and simultaneous video streams that include both visible light and thermal imaging.

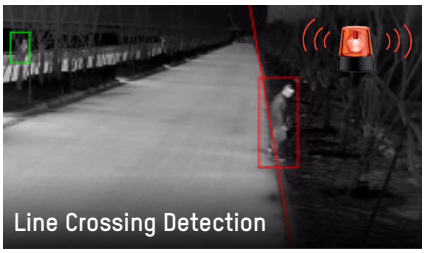
Thus, complex functions can be achieved. For example, bi-spectrum linkage can trigger automatic optical tracking if thermal units detect a target, and the fire detection function can locate fires and auto-matically zoom in with a traditional camera for visible confirmation.

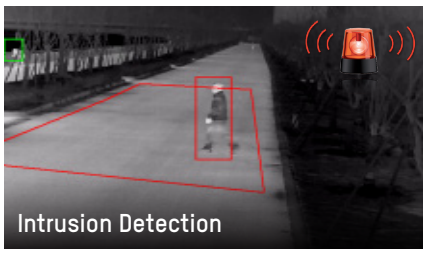
To meet accurate temperature-measuring requirements, we created thermography bullet & PTZ cameras, which support point, line, and frame temperature measurement types. Users can set upper and lower temperature limits. When the temperature exceeds set limits, an alarm will be triggered. We have also introduced handheld thermal devices for industrial testing or outdoor activities. It's easy to carry and records precise measurements.

APPLICATION EXAMPLES

PERIMETER PROTECTION
KEY-REGION INTELLIGENT PREVENTIONS

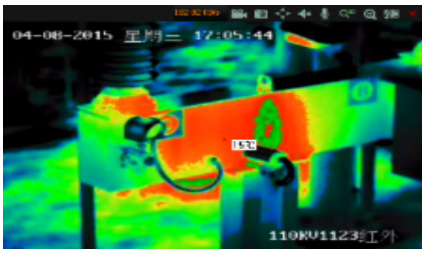
Rapid target lock and alarm triggering, even in complete darkness and challenging conditions such as rain, smoke, dust, and snow.





THERMOGRAPHY
TO AVOID DAMAGE

The radiometric measurement feature inside the camera can help you detect temperature deviations in an early stage to prevent damage due to overheating.



PROTECTION
OF BORDERS & COASTLINES

Long-range perimeter protection, is only slightly affected by harsh weather conditions.

FIRE & THEFT PREVENTION
IN WAREHOUSE SETTINGS

Thermal cameras can detect temperature anomalies of a starting fire before the smoke is detected by a conventional fire detector. Even in low contrast situations the thermal cameras can detect humans in a very early stage.

REFERENCE INSTALL

ECUADOR
ELECTRIC TEMPERATURE MONITORING IN ENERGY SUBSTATION

A total of 60 cameras were installed, providing dedicated client use for temperature measurement and monitoring, and running on a third-party grid platform. This system implements preventive detection of operating events and monitors the main parts of the substation, such as insulators, transformers, and more. Once a device is found to exceed the normal operating temperature, alarm information is generated.

CHINA
COASTAL DEFENSE PROJECT – CHAO ZHOU

Surveillance of seafaring vessels to prevent smuggling or other violations in ocean environments is especially tough. Hikvision Thermal PTZ Cameras solve this problem, providing security personnel with sharp imaging and smart functionality.

THERMAL IMAGING

DS-2TS03-25UM/W

Handheld Observational Thermal Camera

- Thermal resolution: 384 × 288 / 17 μm
- Thermal lens: 25 mm (15°) thermal lens option
- 0.39" OLED, 1024 × 768
- 32 GB MicroSD card
- Hot-spot tracking
- Support Wi-Fi
- 6 hours operating time on single charge
- IP67 Protection rating
- 2 m Drop protected

DS-2TD2136-7/10/15/25
DS-2TD2166-7/15/25/35

Thermal Network Single-Lens Bullet Camera

- Thermal resolution: 384 × 288 (2136) or 640 × 512 (2166)
- Thermal lens: 10 mm (2136: 36°)/ 15 mm (2136: 24°, 2166: 39°)/ 25 mm (2136: 15°, 2166: 24°)/ 35 mm (2166: 17°)
- Support line crossing and intrusion detection
- Support temperature anomaly alarm
- Support fire detection
- IP66 Protection rating

DS-2TD2336-50/75/100
DS-2TD2366-50/75/100

Thermal Network Bullet Camera

- Thermal resolution: 384 × 288(2336) /640 × 512(2366)
- Thermal lens: 50 mm (2336: 7.47°/ 2366: 12.42°)/ 75 mm (2336: 4.98°/ 2366:8.3°)/ 100 mm (2336:3.74°/ 2366:6.23°)
- Support line crossing and intrusion detection with smart tracking linkage
- Support temperature anomaly alarm
- Support fire detection
- IP66 Protection rating

DS-2TD2466-25Y/50Y

Anti-corrosion Thermal Network Bullet Camera

- Thermal resolution: 640 × 512
- Thermal lens: 25mm (24°) , 50 mm (12.42°)
- Support line crossing and intrusion detection with smart tracking linkage
- Support temperature anomaly alarm
- Support fire detection
- IP66 Protection rating

DS-2TD2235D-25/50

Thermal + Optical Bi-spectrum
Network Bullet Camera

- Thermal resolution: 384 × 288
- Visible resolution: 1920 × 1080
- Visible-light lens: Darkfighter Ultra low light
- Thermal lens: 25 mm (21.7°) / 50 mm (11°) thermal lens option
- Support line crossing and intrusion
- Up to 120 m IR distance
- IP66 Protection rating

DS-2TD4136-25/50
DS-2TD4166-25/50

Thermal + Optical Bi-spectrum
Network Speed Dome

- Thermal resolution: 384 × 288 (4136) / 640 × 512 (4166)
- Visible resolution: 1920 × 1080
- Thermal lens: 25 mm (4136: 15°/ 4166:14.88°)/ 50 mm (4136: 7.47°/ 4166:12.42°)
- 360° Endless pan range, -15° to 90° tilt range
- Support line crossing and intrusion, which can be linked to auto tracking
- Support temperature anomaly alarm
- Support fire detection
- Up to 150 m IR distance
- IP66 Protection rating

DS-2TD6236-50H2L/75/100C2L
DS-2TD6266-50H2L/75/100C2L

Observable Thermal + Optical Bi-spectrum
Network PTZ Camera

- Thermal resolution: 384 × 288 (6236)/ 640 × 512 (6266)
- Visible resolution: 1920 × 1080
- Visible-light lens: 5.7-205.2mm, 36x Optical zoom(50H2L)/ 6.7-330mm, 49x (75/ 100C2L)
- Thermal lens: 50 mm (6236: 7.47°/ 6266: 12.42°)/ 75 mm (6236: 4.98°/ 6266:8.3°)/ 100 mm (6236: 3.74°/ 6266:6.23°)
- 360° Endless pan range, +40° to -90° tilt range
- Support line crossing and intrusion detection with smart tracking linkage
- Support temperature anomaly alarm
- Support fire detection
- Up to 500 m IR distance
- IP66 Protection rating

DS-2TD8135-75H2/100C2F/ 150E2F
DS-2TD8166-75C2F/100C2F/ 150E2F

Thermometric Thermal + Optical Bi-spectrum
Network PTZ Camera

- Thermal resolution: 384 × 288 (8135) / 640 × 512 (8166)
- Visible resolution: 1920 × 1080
- Visible-light lens: 5.7-205.2mm, 36x Optical zoom (8135 -75H2)/ 6.7-330mm, 49x (8135/ 8166-75/ 100C2F)/ 12.5 - 775 mm , 62x (8135/8166-150E2F)
- Thermal lens: 75 mm (8135 -75H2: 7.32°/ 8166 -75C2F: 8.3°)/ 100 mm (8135: 5.5°/ 8166: 6.23°)/ 150 mm (8135: 3.67°/ 8166: 4.15°)
- 360° Endless pan range, +40° to -45° tilt range
- Support line crossing and intrusion detection with smart tracking linkage
- Support temperature anomaly alarm
- Support fire detection
- IP66 Protection rating

DUAL USE

DS-2TD2136T-10/15/25
DS-2TD2166T-15/25/35
Thermal Network Single-Lens Bullet Camera

- Thermal resolution: 384 × 288 (2136T) or 640 × 512 (2166T)
- Thermal lens: 10 mm (2136T: 36°)/ 15 mm (2136T: 24°, 2166T: 39°)/ 25 mm (2136T: 15°, 2166T: 24°)/ 35 mm (2166T: 17°)
- Support line crossing and intrusion detection
- Support temperature anomaly alarm
- Support fire detection
- -T: -20 °C – 550 °C temperature range, max. ± 2 °C, ± 2% temperature accuracy
- IP66 Protection rating

DS-2TD6135T-25/50A2L
DS-2TD6166T-25/50A2L
DS-2TD6266T-50H2L
Thermometric Thermal + Optical Bi-spectrum Network PTZ Camera

- Thermal resolution: 384 × 288 / 640 × 512
- Visible resolution: 1920 × 1080
- Visible-light lens: 4.5–135 mm, 30x optical zoom, 16x digital zoom
- Thermal lens: 25 mm (6135T: 21.7°, 6166T: 24.5°) / 50 mm (6135T: 11°, 6166T: 12.4°, 6266T:12.42°) thermal lens option
- 360° Endless pan range, +40° to -90° tilt range
- -20 °C – 550 °C temperature range, max. ± 2 °C, ± 2% temperature accuracy
- Support line crossing and intrusion detection with smart tracking linkage
- Support fire detection
- Up to 500 m IR distance
- IP66 Protection rating

THERMOGRAPHY

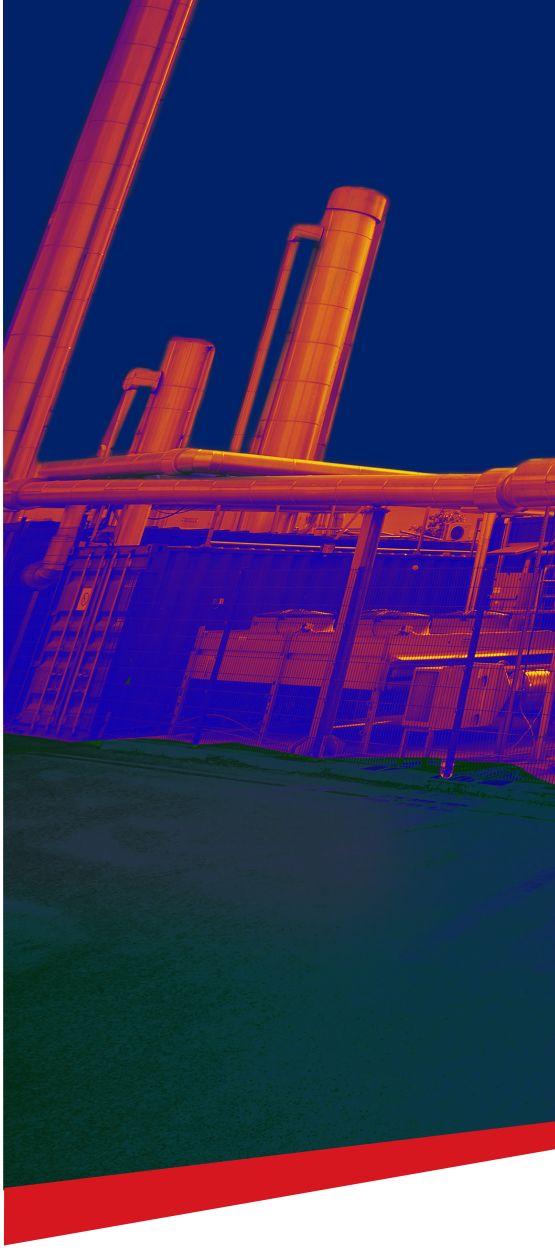
DS-2TP03-15VM/W
Handheld Thermometric Thermal Camera

- Thermal resolution: 384 × 288 / 17 µm
- Visible resolution: 8 MP
- 15 mm (25°) thermal lens
- 3.6" touch screen
- -20 °C – 650 °C temperature range
- Max. ± 2 °C, ± 2% temperature accuracy
- 64 GB SD card
- 4 hours operating time on single charge
- IP66 Protection rating

REMARKS

HIKVISION THERMAL CAMERAS
SEEING THE UNSEEN

smart 2.0



You can rely on Hikvision video surveillance products to meet your security needs.
Our professional partners will be happy to provide you with any information you need.

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