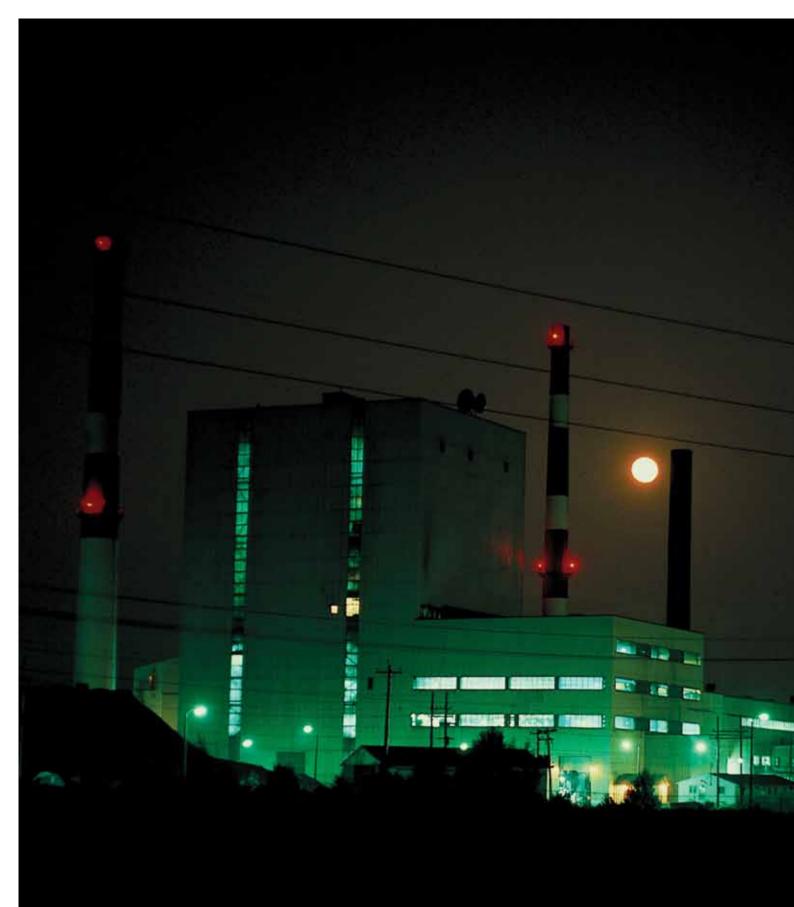
### Axis thermal network cameras.

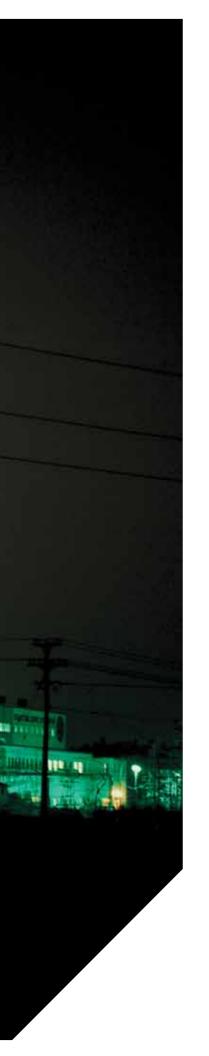
High-quality detection in dark and challenging conditions.











# Everything you expect from thermal cameras

...plus all the usual Axis features.





### Protect what you value most

The Axis thermal network cameras' ability to detect thermal radiation makes it difficult for individuals to conceal themselves within a wide perimeter of a sensitive area or building.

# Thermal detection

### the key to effective video surveillance

Effective video surveillance depends on accurately detecting and identifying objects, people or incidents, so that appropriate action can be taken. But conventional video surveillance cameras will have difficulties capturing usable images in complete darkness or under other challenging conditions such as smoke or fog, or when subjects are hiding or obscured by a complex background.

### Before you can identify, you must detect

Visible light, which the human eye can see and standard cameras can detect and display, requires a light source such as the sun or a flood light. Even day/night cameras, which use the near-infrared spectrum, require some light to operate – either natural or a dedicated IR-lamp.

A thermal camera requires no light source, as thermal radiation is emitted from every object with a temperature above zero degrees Kelvin. Even very cold objects, like ice, emit thermal radiation. The hotter the object, the greater the radiation. The greater the temperature differences in a scene, the clearer the image a thermal camera will offer.

### Give your surveillance 100% capability

The advantage of this is that thermal cameras quickly and unmistakably detect any incidents occurring in their field of view. They are robust and cannot be blinded by strong lights or put out of order using laser pointers. They provide an ideal first line of strength that triggers further action, thus dramatically enhancing the effectiveness of your surveillance system.

### Put video analytics to work

Thermal cameras are immune to most problems with light conditions, normal shadows, etc. – which makes them ideal for video analytics. They achieve higher accuracy than conventional cameras in most intelligent video applications.



Thermal cameras detect thermal radiation from people, even when they are obscured by complex backgrounds, or trying to hide in shadows.











### We'll put you in the picture

Thermal cameras are excellent for detecting people and vehicles and other objects in darkness and challenging conditions. Thermal cameras do not, however, deliver images that allow reliable identification. That is why thermal cameras and conventional cameras support and complement each other, and why thermal network cameras are a perfect addition to any professional network video surveillance system that needs to secure an area 24 hours a day, seven days a week.



# Strengthen your security system.

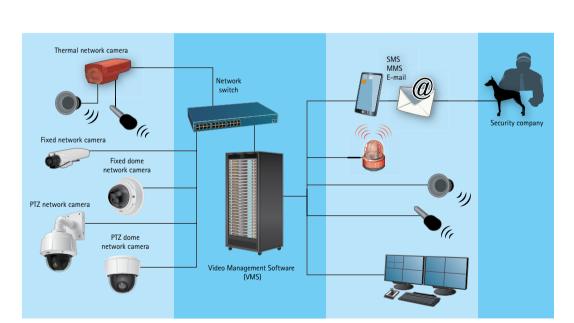
Detecting any intruder that crosses your chosen perimeter, Axis thermal network cameras are your first line of strength. Besides alerting active physical response, they mesh perfectly with Axis network cameras, so you can make the most of your video surveillance capability.

### A reliable trigger for the right response

Axis thermal network cameras are ideal for detecting people, objects and incidents in total darkness or a wide variety of difficult conditions. They can be used in many surveillance applications – and in manned as well as unmanned surveillance configurations. In either case, a moving object such as a person or a vehicle can function as a trigger.

Response can range from switching on lights, to steering a PTZ camera to the thermal camera's detection point, to video recording, to alerting a patrolling guard.

With affordable IP-based thermal network cameras from Axis, thermal imaging is a realistic option for enhancing any professional network video surveillance system.













# Easy and affordable plus all the usual Axis benefits

Offering reliable detection in darkness and other challenging conditions, Axis thermal network cameras are a perfect complement to any professional video surveillance system. They also offer all the benefits that make Axis network cameras your first choice, from out-of-the-box installation to support for the market's widest range of video management solutions. And unlike most thermal detection alternatives, they're easily affordable.

### Cost-effective installation and easy integration

Axis thermal network cameras are installed quickly and easy. They can utilize your existing IP infrastructure, so no new cabling needs to be drawn. Outdoor-ready models withstand harsh weather conditions – right out of the box. And the cameras run on Power over Ethernet, allowing them to be powered over the network, which eliminates the need for power cables and reduces installation costs. Or, for full flexibility, they can also run on standard 12/24V AC/DC power.

### Smart cameras for smart systems

Axis thermal network cameras have excellent processing power and offer intelligent video capabilities such as video motion detection and detection of camera tampering attempts like blocking or redirection. They also provide capacity for third-party analytics modules, including support for AXIS Camera Application Platform, an open interface for downloading video analytics applications to the cameras. Not least, Axis thermal network cameras support two-way audio, which allows the user to communicate with visitors and intruders.

### Optimized storage and outstanding video performance

Employing industry-standard video compression techniques such as Motion JPEG and H.264, Axis thermal network cameras minimize storage and bandwidth requirements on the network. At the same time they deliver outstanding video streaming performance of your choice of a variety of color palettes, which further enhances detection possibilities.

### Access to the market's best range of video management systems

Axis thermal network cameras employ Axis' industry-standard open interface, VAPIX®. This ensures that they will instantly work with the market's broadest selection of video management systems, ranging from Axis' own AXIS Camera Station for smaller systems, to hundreds of leading video management solutions from Axis' Application Development Partners.

# Thermal detection that solves real problems.

Axis thermal network cameras form a perfect part of video surveillance systems in a variety of segments, such as government, transportation, city surveillance and education.

### **Perimeter protection**

An invisible thermal fence provides discreet and cost-effective detection

### Key drivers:

Powerful and cost-effective alternative to radio frequency intruder detection, electrified fences, CCTV/flood lights, etc.

- > Strengthens/augments physical fences
- > No IR illumination needed
- > Discreet No light pollution

### Typical applications:

- > Ports and marinas
- > Power plants
- > Utilities
- > Prisons



### Area protection

### Effective area protection gives cost-effective security

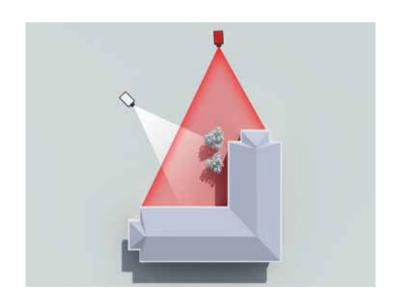
### Key drivers:

Thermal detection at outdoor locations triggers front line response to intruders, thereby helping minimize:

- > Vandalism
- > Burglary
- > False alarms

### Typical applications:

- > Parking lots
- > Schools and campuses
- > High-security premises
- > Loading docks





## **Building security and emergency management**

Detecting human presence indoors, after business hours or during emergencies

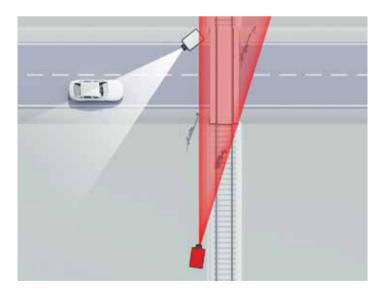
### Key drivers:

Quickly detecting human presence and incidents at indoor locations reduces or prevents:

- > People hiding in the building after closing time
- > Fire
- > Riots
- > False alarms

### Typical applications:

- > Retail stores
- > Office buildings
- > Prisons
- > Warehouses



### Public safety and security

Detecting human presence in dangerous or off-limits areas enables fast remedial action

### Key drivers:

Detection enhances safety and security in potentially dangerous environments:

- > Reduces accident risk and potential loss of life
- > Prevents vandalism and crime

### Typical applications:

- > Tunnels
- > Railway tracks and platforms
- > Bridges
- > Crossroads

### **AXIS Q.19 Thermal Camera Series**

In addition to their unique thermal detection capabilities, Axis thermal network cameras incorporate all the features that are standard in our top-of-the-range network video cameras, thus delivering a host of tangible benefits to professional video surveillance installations.



### Onvie

- > Detection even in complete darkness
- > No separate light sources needed
- > Affordable realistic complement to conventional network cameras
- > Multiple H.264 video streams with individual color palettes
- > Two-way audio
- > Motion detection, active tampering alarm, third-party analytics
- > Built-in SD/SDHC card slot
- > Power over Ethernet
- > Easy integration with a wide range of video management systems
- > Supports ONVIF for interoperability between network video products

Out-of-the-box outdoor-ready thermal network cameras designed to withstand harsh weather conditions, with all the features of the indoor version, plus:

- > Integrated window heater
- > Dustproof and protected against strong water jets
  - IP66-rated





### Wide range coverage

The wide selection of camera models makes it possible to optimize detection performance to meet most application requirements.

			Viewing angle	Detection range			
		Focal length		Size: 1.8 x 0.5 m		Vehicle: 1.4 x 4.0 m	
_							
					N		
	Resolution	Focal length	Horizontal	meters	yards	meters	yards
AXIS Q1910 AXIS Q1910-E	160×128	13 mm	17°	200	220	550	600
AXIS Q1921 AXIS Q1921-E	384x288	10 mm	51°	220	241	660	722
		19 mm	28°	390	427	1200	1312
AXIS Q1921-E	384x288	35 mm	16°	700	766	2200	2405
		60 mm	9°	1200	1312	3700	4046
AXIS Q1922 AXIS Q1922-E	640x480	10 mm	57°	320	350	990	983
		19 mm	32°	580	634	1800	1970
AXIS Q1922-E	640x480	35 mm	18°	1050	1148	3200	3500
		60 mm	10°	1800	1970	5500	6015
AXIS Q1931-E	384x288	7 mm	50°	220	240	675	740
		13 mm	28°	390	430	1200	1300
		35 mm	10°	1030	1130	3170	3460
		60 mm	6°	1770	1930	5420	5920

 $\label{lem:conditions} \mbox{According to Johnson's criteria. The ranges vary in different weather conditions.}$ 

### **About Axis Communications**

As the market leader in network video, Axis is leading the way to a smarter, safer, more secure world — driving the shift from analog to digital video surveillance. Offering network video solutions for professional installations, Axis' products and solutions are based on an innovative, open technology platform.

Axis has more than 1,400 dedicated employees in 40 locations around the world and cooperates with partners covering 179 countries. Founded in 1984, Axis is a Sweden-based IT company listed on NASDAQ OMX Stockholm under the ticker AXIS.

For more information about Axis, please visit our website www.axis.com.

