How a “blind” technology keeps an eye on your premises.

SECURITY RADAR FOR
SURVEILLANCE PURPOSES

Enter >

AXIS COMMUNICATIONS

AXIS D2110-VE
Security Radar and
AXIS T91R61
Wall Mount

Always on the radar.

In 2017, Axis introduced the world's first radar solution for surveillance purposes. The perfect complement to Axis network cameras and other network security equipment, this proven "blind" technology offers a long list of possibilities for securing large areas 24/7.

Why radar?

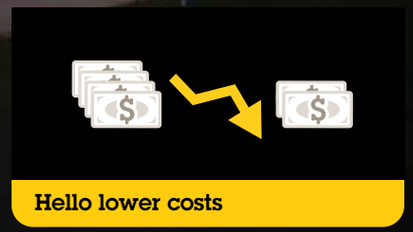
Maybe you're wondering how – and why – radar made its way from the realms of military and aviation (for example) to the world of surveillance and security. The answer is simple: Radar detects moving objects and individuals and establishes their precise position, angle of movement, and speed without relying on visibility. That makes it a particularly valuable tool for detecting and tracking trespassers.

Goodbye lights at night

Radar doesn't depend on visibility to detect – or follow – objects and individuals. Darkness, fog and even rain won't trip it up. So it won't miss a threat the camera can't see. And for those times when you do need to see, Axis security radars can trigger a lamp, so you won't need costly, always-on lighting to keep your premises safe at night.

Minimize false alarms

With radar, motion detection is based on radio waves that "bounce back" from moving objects. So, effects caused by moving shadows and beams of light won't set off an alarm. And, you can set your radar to react only to objects at a certain distance, speed, or type – such as people or vehicles. Which means no more alarms set off by spiders or by raindrops on lenses and less money wasted on false alarms.



Hello lower costs

In addition to savings on lighting and the costs of false alarms, Axis radar technology is in itself a cost-effective alternative to other "blind" technologies including PIR sensors and thermal cameras. Not least because it covers a large area and makes it possible to track objects without the need for staff intervention.

Part of a complete Axis security solution

The best thing about Axis radar technology is the role it plays in a complete network security solution from **Axis – where the whole is truly greater than the sum of its parts.**

Radar on the job.

The role AXIS D2110-VE Security Radar plays in your security system is to protect large areas. It uses advanced radar technology and intelligent algorithms to detect, classify, and track intruders who've managed to penetrate your perimeter.

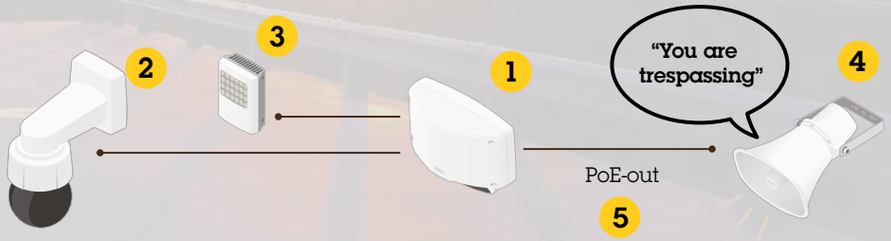
Detect, deter, and verify

A typical scenario might look like this: a radar device detects a trespasser on your premises and embedded analytics send a signal to the network. This sets off a pre-recorded announcement from an Axis network horn speaker, turns on floodlights to warn the intruder away, or triggers a camera to start recording so you can visually verify the threat. Or possibly all three.

Identify and track

At the same time, information is delivered to an Axis PTZ camera about the exact coordinates, speed and type of the object, and the direction it's traveling. The PTZ camera automatically zooms in on the object and tracks it. And your security personnel can make fast, informed decisions about what to do next. Additionally, the radar can trigger events when an intruder crosses a previously defined line or enters a predefined zone.

Part of a total solution



1. AXIS D2110-VE Security Radar for accurate motion detection with fewer false alarms. 180-degree horizontal coverage with up to 60-meter (200-foot) range for people and up to 85-meter (280-foot) range for vehicles.
2. Axis PTZ network camera for automatically tracking detected objects.
3. Illuminator to facilitate visual verification and identification using an Axis PTZ network camera (triggered by security radar).
4. Axis network horn speaker to deter intruders with automatic audio announcements (triggered by security radar).
5. AXIS D2110-VE features PoE-out for powering another device, such as the network horn speaker, reducing cabling costs.

When is radar right for you?

Radar for surveillance purposes is perfect for wide-open, outdoor areas with moderate activity. For example, for big retail stores that keep stock outside in a fenced-off area or for industrial sites, storage facilities, and critical infrastructure with enclosed outdoor areas. It's particularly useful for detecting trespassers who've breached your perimeter and for detecting façade climbers and preventing intrusion from the roof.

Choose an Axis radar solution when you want:

Protection you can count on. Radar is a proven technology that's been doing important work in military, marine, and airline applications for ages. Now it's also being adapted for and used in surveillance.

Fewer false alarms. Radar is not sensitive to things that often trigger false alarms when using surveillance cameras. Like moving shadows, light beams, raindrops, or insects.

Information cameras can't provide. Such as an object's precise position, speed and direction of movement as well as accurate object classification (is it a person or a vehicle?).

Automatic PTZ tracking. AXIS D2110-VE Security Radar delivers exact coordinates, object type, speed, and direction of objects, so Axis PTZ cameras can track them without human involvement.

Flexible coverage. 180-degree coverage with up to 60 m (200 ft)) range for people, and up to 85 m (280 ft) range for vehicles. Plus, near-distance coverage and vertical detection when security radar is appropriately mounted.

Detection with privacy. When visual video surveillance is not possible or permitted, Axis security radars provide detection without compromising privacy.

A cost-efficient complement to video surveillance. Axis security radars are reasonably priced, they don't rely on always-on lighting, false alarms are less likely, and you'll need fewer guards thanks to remote monitoring and alarms.

Easy integration. Axis security radars are based on an open platform. So they're easy to integrate with Axis network cameras, audio and access control solutions as well as video management systems from Axis and our partners.

Why radar for surveillance?

By nature, radar isn't dependent on visibility. Darkness, fog, or even moderate rainfall doesn't impact its ability to detect motion. And it's not "fooled" into reacting erroneously to things like moving shadows, beams of light, or insects. So you get reliable detection, keep false alarms to a minimum, and reduce costs, of course.

How does radar work?

First developed in the 1940s for military purposes, radar technology accurately detects moving objects in low or no light. Since those early days, radar has proved useful in applications and industries as diverse as weather forecasting, fishing, aviation, and automotive. In 2017, Axis released the world's first radar solution for surveillance and security purposes. Today this proven technology has become a valuable addition to our other security solutions.

Radar uses a system similar to the one bats use to navigate in the dark. It works like this:

1. A radar device transmits signals consisting of electromagnetic waves in the radio frequency spectrum (also known as radio waves).
2. When a radio wave hits an object, it is reflected or scattered in many directions, with a small portion reflected back to the radar device.
3. A receiver in the radar device detects the reflected signal, which provides information including precise location and velocity of the object that was hit.
4. In the case of an Axis security radar, the information provided by the radar can be used to detect and classify the object, and automatically activate and steer a PTZ camera to track it. Or it can be used without a camera to avoid compromising privacy.

Who benefits from radar?

These are just a few examples of where Axis security radar plays a role in protecting large outdoor areas or façades:

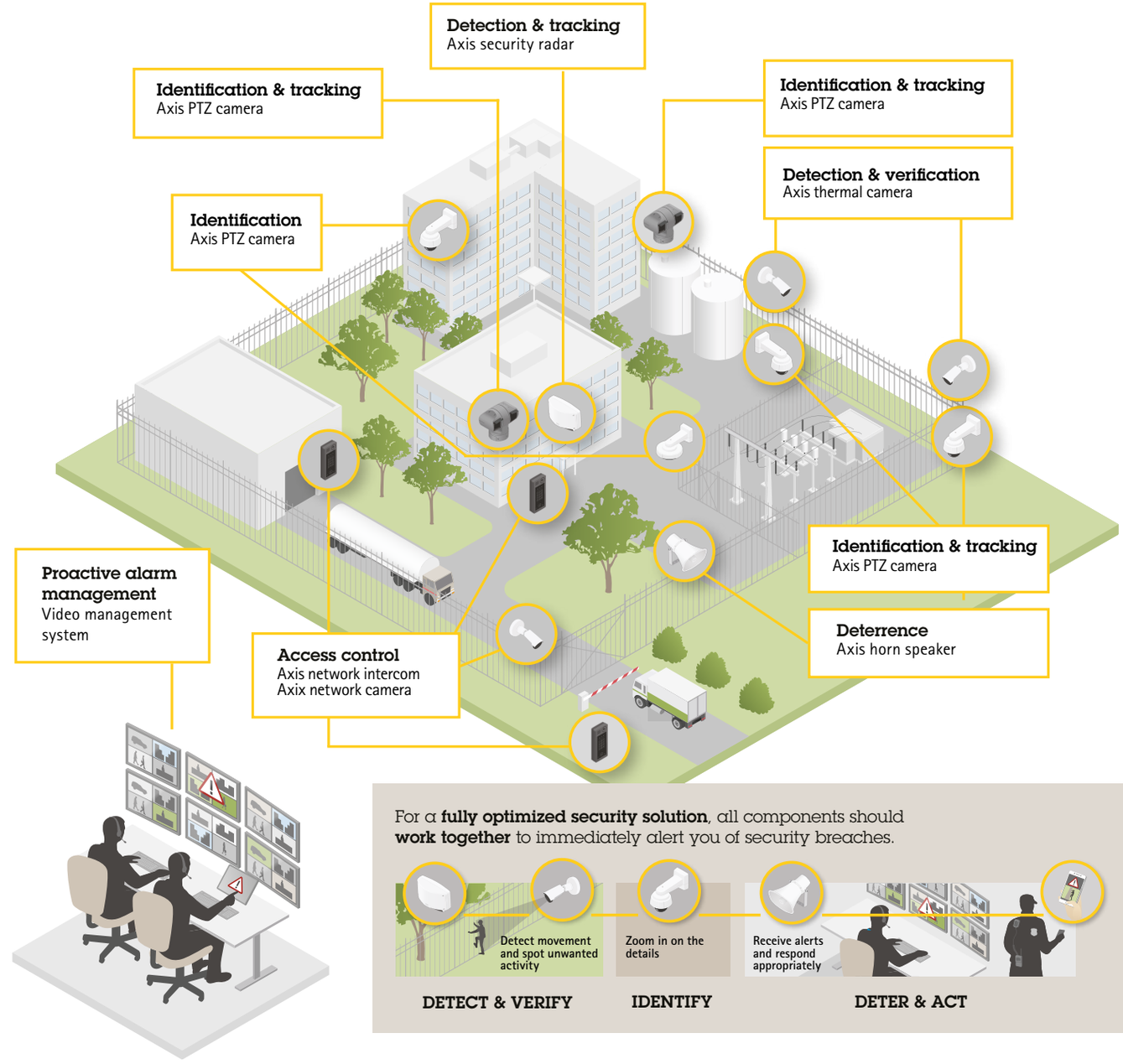
- Manufacturing
- Storage
- Critical infrastructure
- Shopping centers
- Factories
- Warehouses
- Schools

How network surveillance protects your premises.

Axis security radars are part of a complete portfolio of products that protect your premises from the outside in.

In addition to Axis security radars, our offering includes visual and thermal network cameras, network intercoms, and audio equipment. They provide a cost-effective complement to traditional approaches to security and guard patrols. Because they all support intelligent analytics that let you monitor your premises and reduce the need for constant staff presence. And, open industry standards make it easy to integrate with your other systems, or add to and upgrade your system.

Axis also provides system components like smart switches and media converters for long-distance fiber-optics connection. In fact, encoders and coax converters mean you can migrate to an Axis surveillance solution at your own pace.



Visit www.axis.com/solutions/solutions-technology/radar for more info!

About Axis Communications

Axis enables a smarter and safer world by creating network solutions that provide insights for improving security and new ways of doing business. As the industry leader in network video, Axis offers products and services for video surveillance and analytics, access control, intercom and audio systems. Axis has more than 3,800 dedicated employees in over 50 countries and collaborates with partners worldwide to deliver customer solutions. Axis was founded in 1984 and has its headquarters in Lund, Sweden.

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

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