

Dinion Infrared Imager

Round-the-clock perimeter surveillance for critical infrastructure sites

Complete your system

The Dinion Infrared Imager is just one part of the total solution offering from Bosch. It covers a wide range of components from cameras to monitors, suitable for meeting any surveillance need.

Dinion Infrared Imager

Challenges	Benefits
Narrow field of view	Designed for perimeter monitoring - 100m (330ft) zone spacing - with the ability to deliver detection level surveillance at 160m (525ft) and classification level surveillance at 120m (390ft)
Difficult lighting conditions (daytime)	2X Dynamic technology with wide dynamic range for maximum image detail even with strong backlighting or high contrast scenes
Difficult lighting conditions (night-time)	Variable Field Illumination ensures even illumination, easy on-site adjustments and unparalleled image detail
Difficult environmental conditions	Certified to survive the world's toughest environments for reliable long-term performance
Budget constraints	Integrated junction box and external adjustment capabilities ensure easy installation. Powerful Day/Night camera and IR illuminator - two devices in one for reduced install time and minimised cost
Missed event rates/low alarm accuracy rates due to human monitoring	Bosch Intelligent Video Analytics (IVA) works independently on each camera and automatically recognizes key events in a scene, alerting the operator and delivering "intelligence at the edge"
Bandwidth and IP storage challenges in low light conditions	IR technology can decrease bit rate requirements by as much as 70%, lowering storage requirements in low light conditions and minimising costs



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A critical test for security

Ensuring effective perimeter protection at critical infrastructure sites such as utilities, defense and research facilities, power plants and transportation hubs is notoriously difficult. The very nature of this kind of site means that security must be of the highest order, to protect against all types of threats, from vandalism and petty theft to potential terrorist attacks.

Challenges for critical infrastructure surveillance

- ▶ Detection and response of a potential threat needs to be swift and accurate. Identification of friend or foe is critical whatever the lighting conditions.
- ▶ Powerful video analytic technology is needed to ensure that no event is missed and that operator response is quick and appropriate.

- ▶ Critical infrastructure sites are often located in remote areas where cameras will be at the mercy of the elements.
- ▶ The sheer size and scale of these sites means product installation needs to be quick and easy, and operational and maintenance costs must be minimised.
- ▶ These sites typically have limited power and little or no ambient lighting, installing artificial lighting is expensive and can draw unwanted attention.

To overcome these issues specify a camera that can be relied upon to withstand the elements, and operate whatever the lighting conditions, from bright daylight to total darkness.

Perimeter surveillance made easy

The Dinion Infrared Imager from Bosch reliably overcomes all the challenges posed by critical infrastructure perimeter protection, and offers a number of additional benefits. The camera integrates Bosch’s advanced imaging and infrared technologies, combining 20 bit image processing with powerful LED infrared illumination in a single, robust outdoor housing. This minimises installation time and cost and can reduce the need for wasteful and expensive floodlighting.

Set-up is easy, with a simple quick-connect system and a single interface for controlling infrared and camera functions. Furthermore, all the adjustments can be made without exposing the electronics to external weather conditions. The Dinion Infrared Imager features 3D Diffuser technology to ensure even illumination, and innovative Constant Light technology, which automatically compensates for naturally occurring LED degradation, ensuring product performance does not fade over time.

New level of daylight image performance

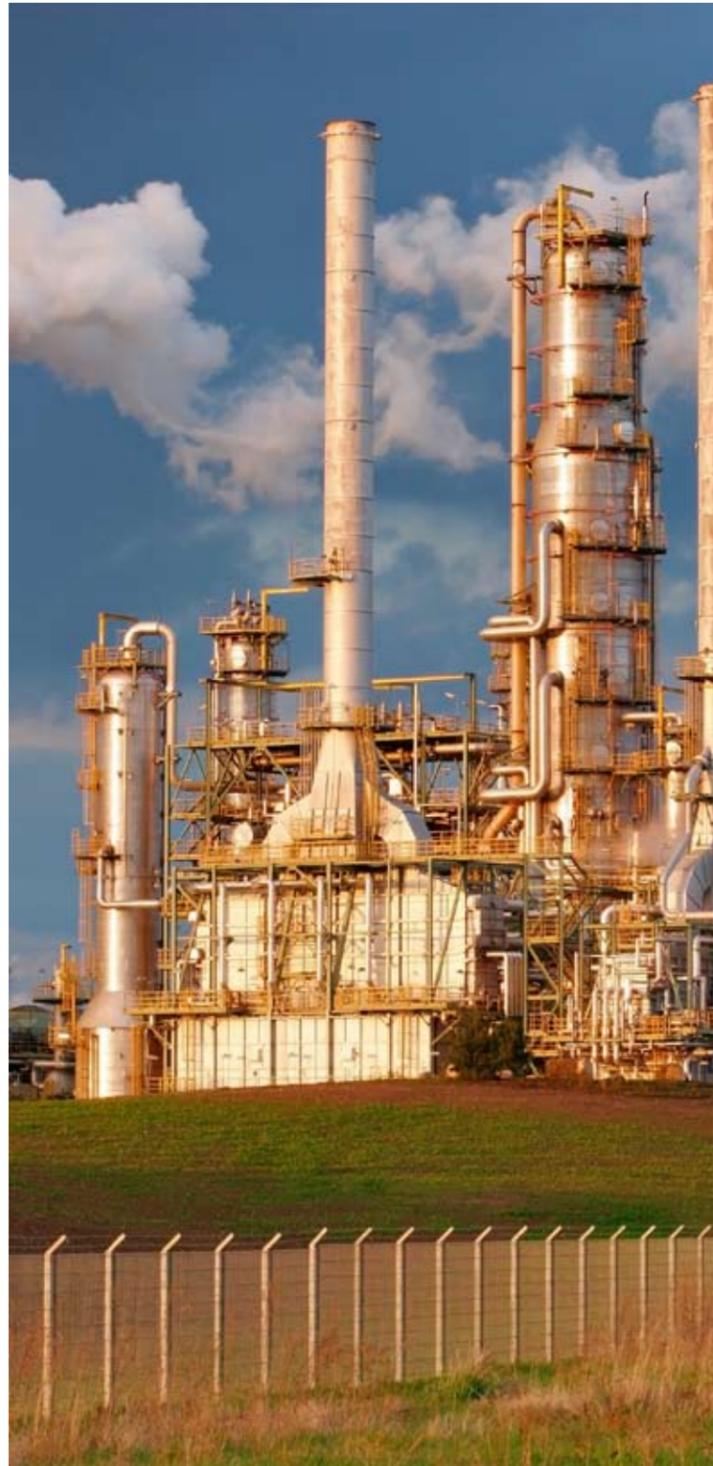
In difficult lighting conditions, from harsh backlighting to deep shadows, the camera delivers unparalleled image quality, thanks to the integration of Dinion 2D-Dynamic 20-bit processing technology. This guarantees a clear and accurate image even in the most difficult lighting conditions. Strong backlighting or high contrast scenes are easily handled by the camera’s wide dynamic range performance, while a highly sensitive CCD sensor offers excellent low light performance, ensuring the highest quality image capture day or night.

Illuminating night-time performance

Featuring powerful LED based infrared, new Variable Field Illumination (VFI) simplifies installation and improves overall image quality during the vulnerable hours of darkness. It allows easy on-site adjustment of infrared intensity and beam shape to match the area covered by the camera’s field of view, whether aimed along a fence (narrow beam) or directly at it (wide beam). VFI provides even illumination across the field of view, and from foreground to background. Designed with perimeter monitoring in mind, the Dinion Infrared Imager achieves up to 160m (525ft) of detection level surveillance and up to 120m (390ft) of classification level imaging in total darkness at night. The result is a high quality image regardless of lighting and weather conditions using the least number of cameras.

Withstand the elements

Built to withstand the elements in the kind of remote, wind-swept regions typical of critical infrastructure sites, the Dinion Infrared Imager gives complete peace of mind. Its robust outer casing is weather rated to IP67 / NEMA4X for total resistance to the elements, and is tested to desert solar radiation conditions, shock and vibration. With optimum reliability designed into every element, the Dinion Infrared Imager can guarantee years of maintenance free operation.



New Variable Field Illumination allows easy on-site adjustment of IR intensity and beam shape whether aimed along a fence (narrow beam) or directly at it (wide beam)

An unblinking eye on security

We understand that effective perimeter protection requires multiple cameras and that monitoring them all can be a difficult task. Human monitoring of security camera can garner alarmingly high ‘missed event’ rates – after only 20 minutes, an operator can miss as much as 90% of the activity on scene. The Dinion Infrared Imager features Bosch’s advanced Intelligent Video Analysis (IVA) that takes monitoring to a new level of automation. Edge-based, real-time processing detects alert conditions, ensuring security personnel never miss a thing, and helping them to react swiftly and appropriately whatever the situation – from loitering in an area to flow detection.



IR for IP

We recognize that one of the most expensive aspects of IP surveillance is storage cost. IP surveillance encounters bandwidth challenges in low-light conditions, image noise can reduce the efficiency of encoders used in today’s IP cameras, resulting in doubling and even trebling of bit rate requirement at night.

Testing shows that in a range of low-light conditions, infrared illumination decreases bit rates by 20% to 70%. Installing Dinion Infrared Imagers can significantly decrease bandwidth requirements; lowering the storage capacity needed for your IP surveillance system by on average 30% in terms of GB.



The Dinion Infrared Imager from Bosch overcomes all the challenges posed by perimeter surveillance