

PIXIM REVIEW

Industrial Security

Pixim-Powered Cameras Tackle Security Concerns

Industrial sites include manufacturing plants, R&D laboratories, factories, warehouses, and related facilities that serve the automotive, aerospace, food and beverage, construction material, chemical, pharmaceutical, and light manufacturing markets. Security concerns particular to industrial locations are many and varied and might include theft (of manufactured goods, scrap metals, or dangerous substances such as harmful chemicals, flammable materials, or biomedical waste), protection against physical infiltration or attack, perimeter security, and employee safety. Security cameras play an important role in industrial security because they operate 24/7, they can monitor a number of areas simultaneously, and they can be deployed in environments that are potentially hazardous to humans.

Common security camera problems for industrial facilities include:

- › Lack of detail, including facial features of workers, visitors, and other people
- › Inconsistent clarity in backlight and high-contrast lighting situations, which are common in loading docks, warehouses, and factories
- › Degraded or no image when there's strong glare
- › Color inaccuracies in uncontrolled or varying lighting conditions, including fluorescent lighting (inside or at night in parking lots)
- › Low-quality Digital Video Recorder (DVR) recordings
- › High operating temperatures

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At-A-Glance:

Pixim Digital Pixel System[®] (DPS) Technology

- › Widest Dynamic Range (WDR): Captures up to 1024 times more data (dynamic range) than standard CCD cameras
- › Signal-to-noise ratio (SNR): >50 dB (max)
- › Sensitivity: <0.5 lux (CMY) minimum illumination f/1.2, 50 IRE
- › Resolution: 540 horizontal TV lines (HTVL) equivalent



Pixim-Powered Cameras Tackle Security Concerns [continued]

Pixim's Digital Pixel System® (DPS) ultra-wide dynamic range technology, a true breakthrough in imaging technology, delivers unprecedented image quality in all lighting conditions. Cameras powered by Pixim's specialized image processing chipsets can significantly enhance industrial security through the following capabilities:

- › Widest dynamic range: Captures highlight and shadow detail – including backlit people and objects – in the same scene.
- › Highest total resolution: Makes it easy to distinguish image features and details, even in uncontrolled and highly variable lighting conditions.
- › Superior color rendering: Accurately displays color even in difficult lighting such as backlight, mixed indoor/outdoor scenes, glare, reflection, and fluorescent lighting.
- › No “camera blindness”: Eliminates the vertical smear, pixel blooming, over-saturation, under-development, and other image artifacts commonly encountered in high-contrast scenes.
- › High image compression: Improves image quality with smaller file size – allowing DVRs to record with higher frame rate or higher resolution, or both, while maintaining the same total recording time.
- › Operation at high temperatures: Maintains image quality even on the ceilings of warehouses or factories, which can easily reach 120°F.



- › Note loss of detail in truck
- › Superior image quality
- › See lights and darks simultaneously

“In the industrial realm, security is becoming as important as safety and health,” says Michael Regan, chairman of the electric utility subcommittees council with the American Society for Industrial Security (ASIS) International, an Alexandria, VA-based trade group. “And security means the protection of the company, its employees and assets.”

“Industrial Security: New Threats Call for New Tactics” IMPOmag.com (Industrial Maintenance and Plant Operation)

Security cameras based on Pixim technology enable retailers to capture details of people, goods, and activities, even in unpredictable and variable lighting conditions, whether at loading docks, warehouses, outdoor storage facilities, factories or laboratories, or the perimeters of these facilities. Pixim-Powered cameras deliver accurate color, even in the strong backlight of a loading dock, in the deep shadows between equipment or stacked goods, under the harsh fluorescent lights of a research laboratory, or in high-temperature conditions. As a result, these cameras can help industrial security personnel identify intruders, detect attempted theft or malicious behavior, prevent workers from making frivolous or false injury claims – with evidentiary-quality images of sufficient detail and accuracy to prosecute wrong-doers.

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