

# Sarix® IXE10LW Series IP Cameras with SureVision

## 1.2 MPX H.264 BOX CAMERAS WITH WDR AND LOW-LIGHT PERFORMANCE

### Product Features

- Up to 1.2 Megapixel (MPx) Resolution (1280 x 960)
- Up to 30 Images per Second (ips) at 1280 x 960
- Auto Back Focus
- H.264 and MJPEG Compression Capability
- Day/Night Models with Mechanical IR Cut Filter
- Wide Dynamic Range with Anti-Bloom Technology
- Power over Ethernet (IEEE 802.3af) or 24 VAC
- Up to 2 Simultaneous Video Streams
- Built-In Analytics
- Local Storage (Micro SD) for Alarm Capture
- Open IP Standards

The **Sarix® IXE10LW Series** IP camera features SureVision technology that seamlessly delivers advanced low-light performance, wide dynamic range (WDR), and anti-bloom technology for industry-leading image quality and performance. The 1.2 MPx network camera includes a mechanical IR cut filter for increased sensitivity in low-light installations. Anti-bloom technology adjusts the image to create the best picture when a bright light source is introduced in a dark scene, such as the glaring head lights of nighttime traffic.

Designed to install quickly, the camera also includes auto back focus (ABF), built-in analytics, and other advanced features needed for demanding security applications.

**Sarix** technology defines the next generation of video security imaging performance, delivering high definition (HD) resolution, advanced low-light capabilities, consistent color science, and fast processing power. The H.264 compression video files are considerably smaller making high definition video more affordable.

### Camera

The **IXE10LW Series** can support two simultaneous video streams. The two streams can be compressed in MJPEG and H.264 formats across several resolution configurations. The **IXE10LW Series** offers real time video (30 ips) with HD resolution using H.264 compression for optimized bandwidth and storage efficiency. The streams can be configured to a variety of frame rates, bit rates, and GOP (group of pictures) structures for additional bandwidth administration.



(LENS NOT SUPPLIED WITH CAMERA)

- Motion Detection
- Audio Accessory Available

### Built-In Analytics

**Pelco Analytics** enhance the flexibility and performance of the IXE10LW Series camera. Eight Pelco behaviors are preloaded on the network camera. Pelco behaviors can be configured and enabled using a standard Web browser, and they are compatible with Endura® or a third-party system that supports Pelco's Analytics API system.

Camera models are also available with preloaded **OV Analytic Suites**. These behaviors can be configured and enabled using a standard Web browser and are compatible with an OV-ready compliant system with an OV Ready™ video management system.

### Web Interface

The **IXE10LW Series** uses a standard Web browser for powerful remote setup and administration.

### Window Blanking

Window blanking is used to conceal user-defined privacy areas that cannot be viewed by an operator. The **IXE10LW Series** supports up to four blanked windows. A blanked area will appear on the screen as a solid gray window.

### Video Systemization

The **IXE10LW Series** easily connects to Pelco IP and hybrid systems such as Endura version 2.0 (or later), Digital Sentry® version 4.2 (or later), and Digital Sentry NVs. The camera also features open architecture connectivity to third-party software. Pelco offers an application programming interface (API) for interfacing with Pelco's network cameras.



by **Schneider Electric**

International Standards  
Organization Registered Firm;  
ISO 9001 Quality System



C2989 / NEW 8-25-11

# TECHNICAL SPECIFICATIONS

## PELCO ANALYTICS

The IXE10LW Series includes eight user-configurable behaviors. The camera is capable of running up to three behaviors at the same time; although, the number of behaviors is limited to the available processing power of the camera and the type of analytic being used.

**Note:** Available processing power is determined by the settings for compression standards, resolution, image rate, bit rate, and analytic configuration.

For each behavior, you can create several custom profiles that contain different camera settings. With these profiles, you can set up different scenarios for the behavior, which will automatically detect and trigger alarms when specific activity is detected.

Pelco Analytics are configured and enabled using a standard Web browser, and Pelco behaviors are compatible with Endura® or a third-party system that supports Pelco's Analytics API system. Multiple Pelco behaviors can be scheduled to work during a certain time or condition. For example, during the day, a camera can be configured with Object Counting to count the number of people that enter a lobby door. At night, the operator can change the profile to Camera Sabotage to trigger an alarm if a camera is moved or obstructed. Available Pelco behaviors include:

- **Abandoned Object:** Detects objects placed in a defined zone and triggers an alarm if the object remains in the zone longer than the user-defined time allows. An airport terminal is a typical installation for this behavior. This behavior can also detect objects left behind at an ATM, signaling possible card skimming.
- **Adaptive Motion:** Detects and tracks objects that enter a scene and then triggers an alarm when the objects enter a user-defined zone. This behavior is primarily used in outdoor environments with light traffic to reduce the number of false alarms caused by environmental changes.
- **Camera Sabotage:** Detects contrast changes in the field of view. An alarm is triggered if the lens is obstructed with spray paint, a cloth, or a lens cap. Any unauthorized repositioning of the camera also triggers an alarm.
- **Directional Motion:** Generates an alarm in a high traffic area when a person or object moves in a specified direction. Typical installations for this behavior include an airport gate or tunnel where cameras can detect objects moving in the opposite direction of the normal flow of traffic or an individual entering through an exit door.
- **Loitering Detection:** Identifies when people or vehicles remain in a defined zone longer than the user-defined time allows. This behavior is effective in real-time notification of suspicious behavior around ATMs, stairwells, and school grounds.
- **Object Counting:** Counts the number of objects that enter a defined zone or cross a tripwire. This behavior might be used to count the number of people at a store entrance/exit or inside a store where the traffic is light. This behavior is based on tracking and does not count people in a crowded setting.
- **Object Removal:** Triggers an alarm if an object is removed from a defined zone. This behavior is ideal for customers who want to detect the removal of high value objects, such as a painting from a wall or a statue from a pedestal.
- **Stopped Vehicle:** Detects vehicles stopped near a sensitive area longer than the user-defined time allows. This behavior is ideal for airport curbside drop-offs, parking enforcement, suspicious parking, traffic lane breakdowns, and vehicles waiting at gates.

## OBJECTVIDEO (OV) ANALYTIC SUITES

ObjectVideo Analytics Suites are preloaded on selected IXE10LW Series cameras and require an OV Ready system to configure the behaviors for alarm notification.

### OV Security Suite

The OV Security Suite is easy to use and includes Tripwire Detection, Inside Area Detection, and Camera Tamper Detection behaviors.

- Tripwire Detection identifies objects that cross a user-defined line drawn within the camera's field of view.
- Inside Area Detection identifies objects entering, appearing, or moving within a user-defined area.
- Camera Tamper Detection identifies significant contrast changes in the camera's field of view; for example, if the lens is obstructed by spray paint, a cloth, or a lens cap.

### OV Security Suite Plus

The OV Security Suite Plus includes the behaviors of the OV Security Suite plus Multi-Line Tripwire Detection, Loitering Detection, and Leave Behind Detection behaviors.

- Multi-Line Tripwire Detection identifies objects that cross two defined lines and generates an event based on defined parameters, including directionality. Defined parameters for this behavior include direction, sequential order, and time between crossing each tripwire.
- Loitering Detection identifies when people or vehicles remain within a user-defined area beyond a specified period of time. This behavior is effective for real-time notification of suspicious behavior around ATMs, stairwells, and school grounds.
- Leave Behind Detection detects objects placed in a defined zone and triggers an alarm if the object remains in the zone longer than the user-defined time allows.

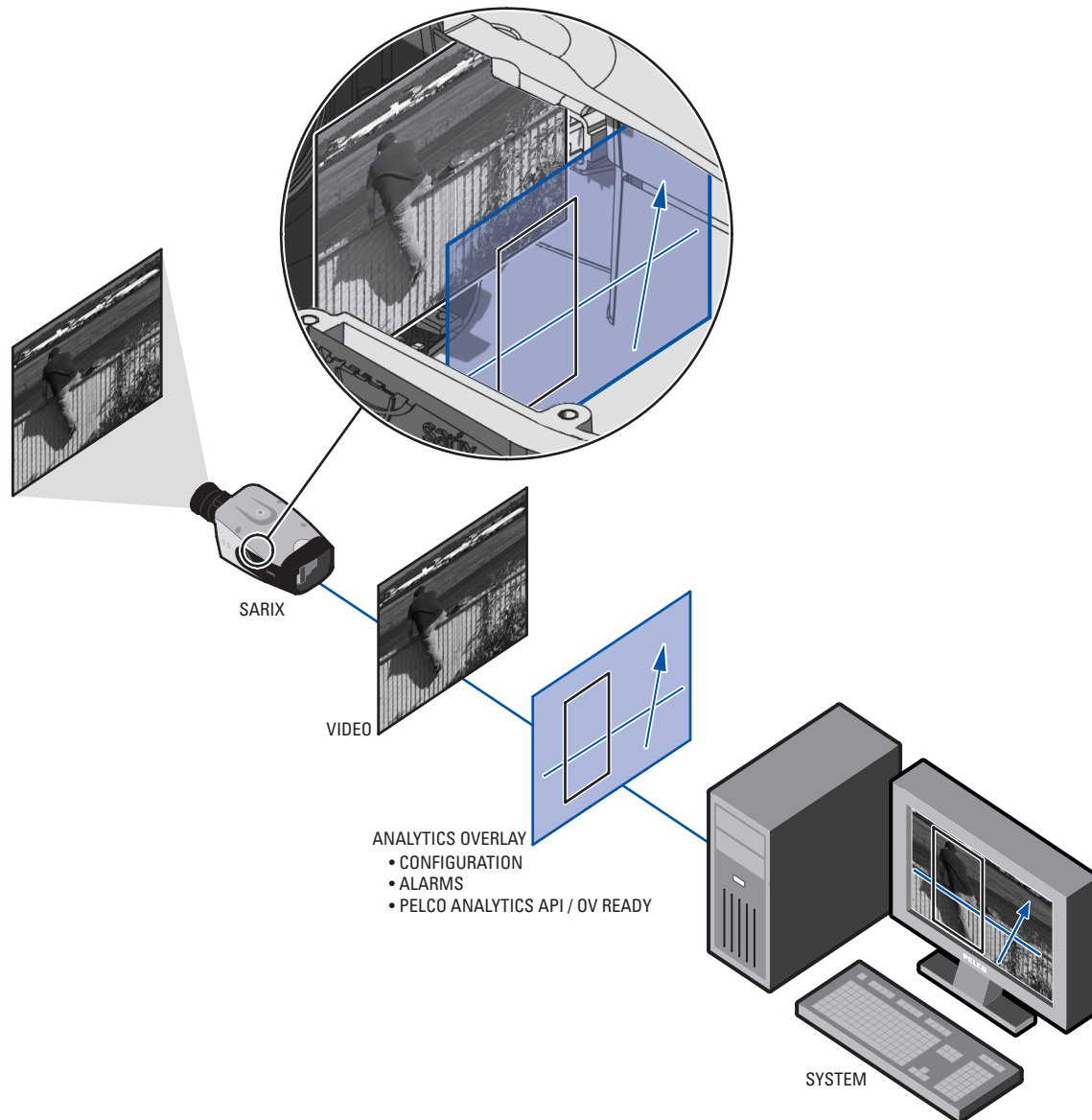
### OV Event Counting Suite

The OV Event Counting Suite uses advanced object calibration and additional features for schedules, parameters, and multiple rules. The suite includes behaviors for Tripwire Counting, Enters/Exits Counting, Loiter Counting, Occupancy Sensing, and Dwell-Time Monitoring.

- Tripwire Counting counts people or objects that cross a user-defined line.
- Enters/Exits Counting calculates the number of people that enter and exit an area without using a tripwire.
- Loiter Counting is useful in analyzing how frequently people stop in front of a product, display, or other area of interest. This feature is also useful in assessing promotion effectiveness and product interest.
- Occupancy Sensing counts people and generates a new value every time the occupancy level changes. Since each occupancy output is time-stamped, the data can be used to determine average occupancy levels or to correlate data to point-of-sale or other business scenarios.
- Dwell-Time Monitoring rules can be set up to record the length of time it takes an object to enter and exit an area. Along with queue size information, wait times can also be assessed. This behavior can be used to evaluate consumer interaction for a point-of-sale display or digital advertisement.

# TECHNICAL SPECIFICATIONS

The following diagram illustrates how the camera system interprets streaming video when embedded analytics are configured and enabled.



**IMPORTANT NOTE: PLEASE READ.** The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ, requiring changes or perhaps additional network equipment to accommodate the system as illustrated. Please contact your local Pelco Representative to discuss your specific requirements.

# TECHNICAL SPECIFICATIONS

## GENERAL

|                          |                            |
|--------------------------|----------------------------|
| Imaging Device           | 1/3-inch                   |
| Imager Type              | CMOS                       |
| Imager Readout           | Progressive scan           |
| Maximum Resolution       | 1280 x 960                 |
| Signal-to-Noise Ratio    | 50 dB                      |
| Auto Iris Lens Type      | DC drive                   |
| Electronic Shutter Range | 1 ~ 1/77,000 sec           |
| Wide Dynamic Range       | 120 dB*                    |
| White Balance Range      | 2,000° to 10,000°K         |
| Sensitivity              | f/1.2; 2,850°K; SNR >20 dB |
| Color (33 ms)            | 0.10 lux                   |
| Color SENS (500 ms)      | 0.005 lux                  |
| Mono (33 ms)             | 0.05 lux                   |
| Mono SENS (500 ms)       | 0.0013 lux                 |
| Weight (without lens)    | 0.51 kg (1.14 lb)          |
| Shipping Weight          | 0.90 kg (2.00 lb)          |

## ELECTRICAL

|                     |  |
|---------------------|--|
| Port                | RJ-45 connector for 100Base-TX<br>Auto MDI/MDI-X               |
| Cabling Type        | Cat5 or better for 100Base-TX                                  |
| Power Input         | 22 to 34 VAC; 24 VAC nominal or PoE (IEEE<br>802.3af class 3)  |
| Power Consumption†  | 6.3 W nominal  |
| Current Consumption |  |
| PoE                 | <200 mA maximum  |
| 24 VAC              | <450 mA maximum  |
| Local Storage       | Micro SD   |
| Alarm Input         | 10 VDC maximum, 5 mA maximum                                   |
| Alarm Output        | 0 to 15 VDC maximum,<br>75 mA maximum                          |
| Service Port        | External 3-connector, 2.5 mm provides<br>NTSC/PAL video output |

\*Sensor level; not inclusive of SureVision image processing.

†Does not include optional accessories connected to the accessory port.

## MECHANICAL

|              |   |
|--------------|---|
| Lens Mount   | CS mount, adjustable  |
| Camera Mount | 0.64 cm (0.25-inch) UNC-20 screw, top and<br>bottom of camera housing |

## ENVIRONMENTAL

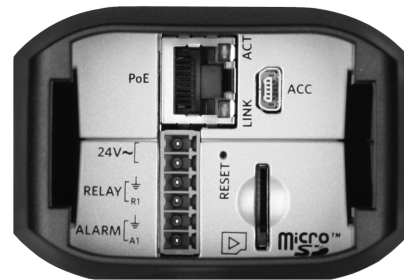
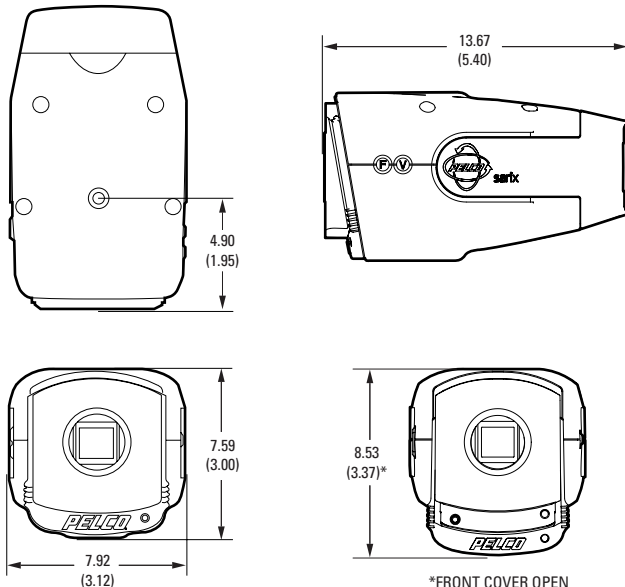
|                       |                             |
|-----------------------|-----------------------------|
| Operating Temperature | -10° to 50°C (14° to 122°F) |
| Storage Temperature   | -10° to 70°C (14° to 158°F) |
| Operating Humidity    | 20% to 80%, noncondensing   |



FRONT VIEW, CAMERA ONLY  
(OPENED TO EXPOSE SERVICE PORT)



NOTE: VALUES IN PARENTHESES ARE INCHES;  
ALL OTHERS ARE CENTIMETERS.



REAR VIEW

# TECHNICAL SPECIFICATIONS

## VIDEO

|                |   |
|----------------|---|
| Video Encoding | H.264 high, main, or base profile and MJPEG   |
| Video Streams  | Up to 2 simultaneous streams; the second stream is variable based on the setup of the primary stream                        |
| Frame Rate     | Up to 30, 25, 24, 15, 12.5, 10, 8, 7.5, 6, 5, 4, 3, 2.5, 2, 1 (dependent upon coding, resolution, and stream configuration) |

| Available Resolutions | Resolution |       |        |              | MJPEG       |                      | H.264 High Profile |                      |
|-----------------------|------------|-------|--------|--------------|-------------|----------------------|--------------------|----------------------|
|                       | MPx        | Width | Height | Aspect Ratio | Maximum IPS | Recommended Bit Rate | Maximum IPS        | Recommended Bit Rate |
|                       | 1.2        | 1280  | 960    | 4:3          | 30.0 ips    | 10.0 Mbps            | 30.0 ips           | 3.0 Mbps             |
|                       | 0.9        | 1280  | 720    | 16:9         | 30.0 ips    | 10.0 Mbps            | 30.0 ips           | 2.9 Mbps             |
|                       | 0.5        | 800   | 600    | 4:3          | 30.0 ips    | 7.7 Mbps             | 30.0 ips           | 2.0 Mbps             |
|                       | 0.3        | 640   | 480    | 4:3          | 30.0 ips    | 4.9 Mbps             | 30.0 ips           | 1.5 Mbps             |
|                       | 0.1        | 320   | 240    | 4:3          | 30.0 ips    | 1.2 Mbps             | 30.0 ips           | 0.5 Mbps             |

|                             |  |
|-----------------------------|--|
| Additional Resolutions      | 640 x 512, 640 x 352, 480 x 368, 480 x 272, 320 x 256, and 320 x 176   |
| Supported Protocols         | TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, SNMP v2c/v3, QoS, HTTP, HTTPS, LDAP (client), SSH, SSL, SMTP, FTP, and 802.1x (EAP) |
| Users                       |  |
| Unicast                     | Up to 20 simultaneous users depending on resolution settings (2 guaranteed streams)  |
| Multicast                   | Unlimited users H.264  |
| Security Access             | Password protected   |
| Software Interface          | Web browser view and setup   |
| Pelco system Integration    | Endura 2.0 (or later)<br>Digital Sentry 4.2 (or later)   |
| Open IP Integration         | Pelco IP camera API  |
| Minimum System Requirements |  |
| Processor                   | Intel® Core®2 Duo microprocessor, 2.6 GHz  |
| Operating System            | Microsoft® Windows® XP, Windows Vista®, or Mac® OS X 10.4 (or later)   |
| Memory                      | 2 GB RAM   |
| Network Interface Card      | 100 megabits (or greater)  |
| Monitor                     | Minimum of 1024 x 768 resolution, 16- or 32-bit pixel color resolution   |
| Web Browser*                | Internet Explorer® 7.0 (or later) or Mozilla® Firefox® 3.5 (or later); Internet Explorer® 8.0 (or later) is recommended for configuring analytics                    |
| Media Player†               | Pelco Media Player or QuickTime® 7.6.5 for Windows XP, Windows Vista, or QuickTime 7.6.4 for Mac OS X 10.4   |

\*Internet Explorer is not supported by Mac OS X 10.4.

†This product is not compatible with QuickTime version 7.6.4 for Windows XP or Windows Vista. If you have this version installed on your PC, you will need to upgrade to QuickTime version 7.6.5.

## ANALYTICS

|   |  |
|---|--|
| Required Systems for Pelco Analytics    |  |
| Pelco Interface                         | WS5200 Advanced System Management Software on an Endura 2.0 (or later) system  |
| Open API                                | Pelco analytics allow streaming information to communicate through Pelco's API Guide for Video Analytics version 0.55.30 (or later), available at <a href="http://Pelco.com/IP">Pelco.com/IP</a> |
| Required System for Object Video Suites | OV ready-compliant system with OV Ready video management system  |

# TECHNICAL SPECIFICATIONS

## MODELS

|             |  |
|-------------|--|
| IXE10LW     | Sarix 1.2 MPx with SureVision, low-light, WDR, day-night, network camera with built-in Pelco analytics         |
| IXE10LW-OS  | Sarix 1.2 MPx with SureVision, low-light, WDR, day-night, network camera with built-in OV Security Suite       |
| IXE10LW-OSP | Sarix 1.2 MPx with SureVision, low-light, WDR, day-night, network camera with built-in OV Security Suite Plus  |
| IXE10LW-OCF | Sarix 1.2 MPx with SureVision, low-light, WDR, day-night, network camera with built-in OV Event Counting Suite |

## CERTIFICATIONS

- CE, Class B
- FCC, Class B
- UL/cUL Listed
- KCC\*
- C-Tick

\*As of the date of this publication, this certification is pending. Please consult the factory, our Web site at [www.pelco.com](http://www.pelco.com), or the most recent B.O.S.S.® update for the current status of certifications.

## ACCESSORIES

|       |   |
|-------|---|
| IX-SC | 4-foot Sarix service cable; compatible with standard BNC connectors |
| AUD-1 | External audio adapter  |
| ALM-1 | External alarm adapter  |

## RECOMMENDED MOUNTS

|        |                        |
|--------|------------------------|
| C10-UM | Universal camera mount |
|--------|------------------------|

## RECOMMENDED ENCLOSURES

|        |                          |
|--------|--------------------------|
| EH1512 | Indoor/outdoor enclosure |
| EH3512 | Outdoor enclosure        |
| DF8    | 8-inch fixed mount dome  |

## RECOMMENDED LENSES

|           |  |
|-----------|--|
| 13M2.2-6  | Megapixel lens, varifocal, 2.2 ~ 6.0 mm, f/1.3 ~ 2.0   |
| 13M2.8-8  | Megapixel lens, varifocal, 2.8 ~ 8.0 mm, f/1.2 ~ 1.9   |
| 13M2.8-12 | Megapixel lens, varifocal, 2.8 ~ 12.0 mm, f/1.4 ~ 2.7  |
| 13M15-50  | Megapixel lens, varifocal, 15.0 ~ 50.0 mm, f/1.5 ~ 2.1 |

Pelco megapixel lenses have been designed and tested to deliver optimal image quality for the IXE10LW Series camera. The use of standard definition lenses on IXE10LW Series megapixel cameras will limit the resolution of the camera, creating poor image quality.

| Field of View<br>in Degrees |            | Aspect Ratio |     |     |
|-----------------------------|------------|--------------|-----|-----|
|                             |            | 16:9         | 4:3 | 5:4 |
| 2.2 mm                      | Horizontal | 120          | 120 | 113 |
|                             | Vertical   | 70           | 92  | 92  |
| 2.8 mm                      | Horizontal | 100          | 100 | 94  |
|                             | Vertical   | 54           | 74  | 74  |
| 6.0 mm                      | Horizontal | 47           | 47  | 44  |
|                             | Vertical   | 27           | 35  | 35  |
| 8.0 mm                      | Horizontal | 35           | 35  | 33  |
|                             | Vertical   | 20           | 26  | 26  |
| 12.0 mm                     | Horizontal | 23           | 23  | 22  |
|                             | Vertical   | 13           | 18  | 18  |
| 15.0 mm                     | Horizontal | 18           | 18  | 17  |
|                             | Vertical   | 10           | 13  | 13  |
| 50.0 mm                     | Horizontal | 6            | 6   | 5   |
|                             | Vertical   | 3            | 4   | 4   |