

# Sarix® IXE Series Box Cameras with SureVision 3.0

## UP TO 3MPX, H.264, IP CAMERAS WITH WDR AND LOW-LIGHT PERFORMANCE

### Product Features

- SureVision 3.0 Technology, Including:
  - 130 dB Wide Dynamic Range (WDR)
  - Advanced Low-Light Performance, 0.05 lux
  - Anti-Bloom Technology
  - 3D Noise Filtering, Enhanced Tone Mapping
- Up to 3 Megapixel (MPx) Resolution
- Up to 60 Frames per Second (fps)
- CS Lens Mounts with Auto Back Focus (ABF)
- Power over Ethernet (PoE), IEEE 802.3af, 24 VAC, 12 VDC
- Pelco H.264 Smart Compression Technology
- Built-in Analytics Suite
- Up to 128 GB Edge Storage with SD Card

### Sarix Enhanced Range with SureVision 3.0

**Sarix® Enhanced (E)** range cameras feature SureVision technology, delivering high definition (HD) resolution, consistent color science, fast processing power, and simultaneous advanced low-light performance with wide dynamic range (WDR) and anti-bloom technologies. New advancements include 3D noise filtering, smooth response to illumination changes, and improved tone mapping to retain color accuracy and overall image contrast.

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

### Camera

Within the **Sarix Enhanced** Range, the **IXE Series Box Cameras** are compatible with a choice of standard CS mount megapixel lenses for wide angle or long range surveillance needs. The box cameras feature an auto back focus mechanism to accommodate this range of lenses and to ensure that the camera automatically stays in perfect focus. The Sarix IXE Series features advanced color science and a mechanical IR cut filter for increased sensitivity in low-light installations.

### Video

The **IXE Series** supports two independently-configurable video streams in addition to a service video stream. The streams can be compressed in MJPEG and H.264 formats across several resolution



**SureVision™ 3.0**  
A Pelco™ by Schneider Electric™ technology

- Compatible with Pelco and Third-Party Video Systems
- ONVIF Profile S, Profile G, and Profile Q Conformant
- Full 3-Year Warranty and Support

configurations. The **IXE Series** offers real-time video (60 fps) with full HD resolution (up to 3 MPx) using H.264 compression for optimized bandwidth and storage efficiency.

The streams can be configured to a variety of frame rates, bit rates, and group of pictures (GOP) structures for additional flexibility in bandwidth administration. In addition, streams can be encoded as constrained variable bit rate (CVBR) or constrained bit rate (CBR).

### Open and Integrated

**Sarix Enhanced** range cameras seamlessly connect to Pelco video management systems such as VideoXpert™, Endura® version 2.0 (or later), and Digital Sentry® version 7.3 (or later). **Sarix Enhanced** range cameras integrate with major third-party video management systems through the Pelco API, and other third-party software and systems through the ONVIF Profile S, G, and Q standards.

### Built-In Analytics

Analytics enhance the flexibility and performance of **Sarix Enhanced** range cameras. Eight behaviors are preloaded and included as standard features. Behaviors can be configured and enabled using a standard Web browser, and they are compatible with VideoXpert, Endura, or a third-party system that supports alarms using Pelco's API.

### Convenient Power

**Sarix Enhanced** range cameras are designed with Power over Ethernet (PoE) to reduce costs and simplify planning, wiring, and installation. PoE functionality works with PoE-enabled network



by **Schneider Electric**



International Standards  
Organization Registered Firm;  
ISO 9001 Quality System



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# TECHNICAL SPECIFICATIONS

switches or power injectors, eliminating the need for separate power supplies and cabling, or increasing camera fail safety through an uninterruptable power supply (UPS).

## CONVENIENT POWER

**Sarix Enhanced** range cameras are designed with Power over Ethernet (PoE), 24 VAC and 12 VDC to reduce costs and simplify planning, wiring, and installation. PoE functionality works with PoE-enabled network switches or power injectors, eliminating the need for separate power supplies and cabling, and increasing camera fail safety through an uninterruptable power supply (UPS).

## ANALYTICS

**Sarix Enhanced** range cameras includes eight user-configurable behaviors. The camera is capable of running up to two behaviors at the same time.

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.

Analytics are configured and enabled using a standard Web browser, and behavior alarms are compatible with VideoXpert, or a third-party system that supports Pelco's API system.

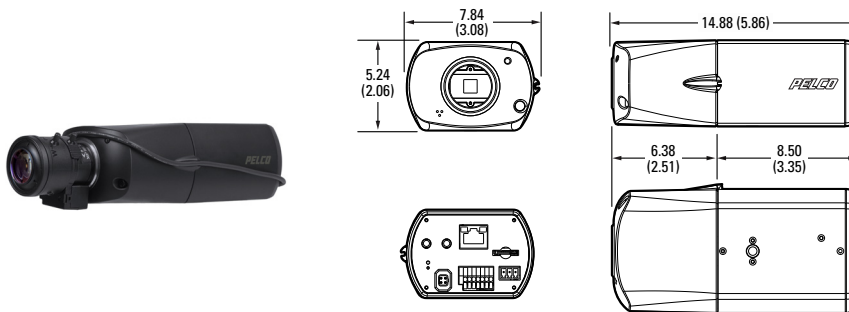
Analytics behaviors can be scheduled to work during a certain time or condition. For example, during the day, a camera can be configured with Object Counting to count the number of people that enter a lobby door. At night, the operator can change the profile to Camera Sabotage to trigger an alarm if a camera is moved or obstructed. Available behaviors include:

- **Abandoned Object:** Detects objects placed within 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.
- **Intrusion Detection:** 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 by spray paint, a cloth, or a lens cap. Any unauthorized repositioning of the camera also triggers an alarm.
- **Wrong Direction:** 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 cross a defined line. This behavior can 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 user-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.

# TECHNICAL SPECIFICATIONS

## COMPONENT FEATURES

 VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.



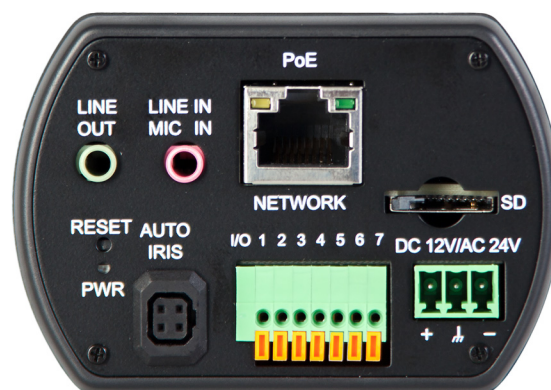
### Box

- RAL 9005
- Aluminum back and plastic front
- Recommended lenses (15 ~ 50 mm, 2.8 ~ 8 mm, or 2.2 ~ 6 mm)
- Recommended universal camera mount (C10-UM)
- Recommended enclosures (EH16, EH35, and EH47 Series)

### FRONT AND SIDE VIEW



### REAR VIEW



# TECHNICAL SPECIFICATIONS

## CAMERA

|                           |                                                                 |
|---------------------------|-----------------------------------------------------------------|
| Imaging Device            | 1/2.8-inch                                                      |
| Imager Type               | CMOS                                                            |
| Imager Readout            | Progressive scan                                                |
| Highest Resolution        |                                                                 |
| 3 MPx                     | 2048 x 1536                                                     |
| 2 MPx                     | 1920 x 1080                                                     |
| 1 MPx                     | 1280 x 960                                                      |
| Signal-to-Noise Ratio     | >60 dB                                                          |
| Auto Back Focus           | Yes                                                             |
| Electronic Shutter Range  | 1/20000 sec to 2 sec                                            |
| True Wide Dynamic Range   | 130 dB                                                          |
| White Balance Range       | 2,000° to 10,000°K                                              |
| Day/Night Capabilities    | Yes                                                             |
| Mechanical IR Cut Filter  | Yes, (ON/OFF/AUTO selectable), with different set points on lux |
| Micro SD Card Support     | Up to 128 GB                                                    |
| SDHC/SDXC Cards Supported | Yes                                                             |
| Sensitivity               | f/1.3; 2,850°K; SNR >20 dB                                      |
| Color (33 ms)             | 0.050 lux                                                       |
| Color (500 ms)            | 0.005 lux                                                       |
| Mono (33 ms)              | 0.010 lux                                                       |
| Mono (500 ms)             | 0.001 lux                                                       |

## NETWORK

|                     |                                                                                                                                                                                    |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Supported Protocols | TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, SSH, SSL, SMTP, FTP, ARP, ICMP, and 802.1x (EAP), NTCIP 1205 |
| Users               |                                                                                                                                                                                    |
| Unicast             | Up to 20 simultaneous users depending on the resolution settings                                                                                                                   |
| Multicast           | Unlimited users H.264                                                                                                                                                              |
| Security Access     | Password protected                                                                                                                                                                 |
| Software Interface  | Web browser view and setup                                                                                                                                                         |

## MECHANICAL

|                |                                                           |
|----------------|-----------------------------------------------------------|
| Lens Mount     | CS mount                                                  |
| Auto Iris Type | DC auto iris                                              |
| Camera Mount   | 1/4 in. UNC-20 screw;<br>top and bottom of camera housing |
| Field of View  | Recommended Lenses                                        |

| Focal Length | Aspect | 3 MPx |      | 1.3 & 2 MPx |      |
|--------------|--------|-------|------|-------------|------|
|              |        | Horiz | Vert | Horiz       | Vert |
| 2.2 ~ 6 mm   | Wide   | 132°  | 100° | 124°        | 70°  |
|              | Tele   | 50°   | 37°  | 47°         | 26°  |
| 2.8 ~ 8 mm   | Wide   | 112°  | 81°  | 105°        | 57°  |
|              | Tele   | 38°   | 29°  | 36°         | 20°  |
| 15 ~ 50 mm   | Wide   | 20°   | 15°  | 19°         | 11°  |
|              | Tele   | 6°    | 4°   | 6°          | 3°   |

# TECHNICAL SPECIFICATIONS

## AUDIO

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Streaming    | Bidirectional: full or half duplex                                                                      |
| Input/Output | Line level/external microphone input and built-in microphone;<br>Single-ended, 1 Vp-p max. signal level |
| Compression  | G.711 and PCM 8 bit, 8 kHz mono at 64 kbit/s                                                            |

## PHYSICAL

|                                      |                                                       |
|--------------------------------------|-------------------------------------------------------|
| Construction                         |                                                       |
| Material                             | Aluminum back and plastic front                       |
| Finish                               | RAL 9005, matte black                                 |
| Weight                               |                                                       |
| Unit                                 | 0.52 kg (1.16 lb)                                     |
| Shipping                             | 0.64 kg (1.41 lb)                                     |
| Product Box Dimensions (approximate) | 12.7 x 19.69 x 12.7 cm<br>(5.0" D x 7.75" W x 5.0" H) |

## ENVIRONMENTAL

|                       |                              |
|-----------------------|------------------------------|
| Operating Temperature | -10° to 55°C (14° to 131°F)  |
| Storage Temperature   | -40° to 60°C (-40° to 140°F) |
| Operating Humidity    | 5 to 95%, RH noncondensing   |
| Storage Humidity      | 20 to 80%, RH noncondensing  |

## ELECTRICAL

|                     |                                                                     |
|---------------------|---------------------------------------------------------------------|
| Network Port        | RJ-45 connector for 100Base-TX<br>Auto MDI/MDI-X                    |
| Cable Type          | Cat5 or better for 100Base-TX                                       |
| Input Power         | PoE (IEEE 802.3af, Class 3), 24 VAC ±10%,<br>12 VDC ±10%            |
| Power Consumption   | Up to 12W nominal                                                   |
| Current Consumption | 330 mA @ POE; 0.5 A @ 24 VAC;<br>1A @ 12 VDC                        |
| Local Storage       | Micro SD, SDHC, SDXC                                                |
| Alarm               |                                                                     |
| Unsupervised Input  | Detects open or closed alarm state<br>5 VDC maximum, 0.5 mA maximum |
| Relay Output        | ±350V VDC maximum, ±130 mA maximum                                  |

## VIDEO

|                       |                                                                              |
|-----------------------|------------------------------------------------------------------------------|
| Video Streams         | Independently configurable primary and secondary streams plus service stream |
| Available Resolutions | Two configurable streams as follows:                                         |

| Camera Model    | Aspect Ratio | MPx         | Width | Height |
|-----------------|--------------|-------------|-------|--------|
| 3 MPx           | 4:3          | 3.0         | 2048  | 1536   |
|                 |              | 2.95        | 1984  | 1488   |
|                 |              | 1.8         | 1600  | 1200   |
|                 |              | 1.2         | 1280  | 960    |
|                 |              | 0.5         | 800   | 600    |
|                 |              | 0.3         | 704   | 480    |
|                 |              | 0.3 (480p)  | 640   | 480    |
|                 |              | 0.07        | 320   | 240    |
| 3 MPx and 2 MPx | 16:9         | 2.0 (1080p) | 1920  | 1080   |
|                 |              | 0.9 (720p)  | 1280  | 720    |
|                 |              | 0.6         | 1024  | 576    |
|                 |              | 0.5         | 960   | 544    |
|                 |              | 0.3         | 800   | 448    |
|                 |              | 0.2         | 640   | 360    |
|                 |              | 0.06        | 320   | 192    |
|                 |              |             |       |        |

|                    |                                                                   |
|--------------------|-------------------------------------------------------------------|
| Maximum Frame Rate | Up to 60 frames per second, 30 fps with WDR                       |
| Video Encoding     | H.264 High, Main, or Base profiles; and MJPEG                     |
| Bit Rate Control   | Constrained variable bit rate (CVBR) and constant bit rate (CBR)  |
| Corridor Mode      | Electronic image flip and mirror: 180°, 90° and 270° (H.264 only) |
| Service Stream     | JPEG stream; 640 x 480 or 640 x 360, up to 15 fps                 |

## PELCO'S H.264 SMART COMPRESSION TECHNOLOGY

Pelco's H.264 Smart Compression Technology lowers bandwidth and storage requirements by up to 70%. Our technology allows the user to make intelligent decisions regarding storage savings and image quality.

Pelco's Smart Compression Technology dynamically analyzes motion occurring within live video in real-time, to intelligently compress the information you don't need, while retaining details with clear quality in the areas that are important in the scene. By enabling Dynamic GOP, an added feature of Smart Compression, the number of I-frames are automatically reduced in scenes with low motion. Based on the complexity of scenes and motion occurring, such as a store room that has limited entry and exit, up to 70% bandwidth savings can be achieved.

# TECHNICAL SPECIFICATIONS

## MODELS

| Resolution | Model Number | Description                                                                           |
|------------|--------------|---------------------------------------------------------------------------------------|
| 1.3 MPx    | IXE12        | Sarix Enhanced Box: Low-light, WDR, day-night, network camera with built-in analytics |
| 2 MPx      | IXE22        | Sarix Enhanced Box: Low-light, WDR, day-night, network camera with built-in analytics |
| 3 MPx,     | IXE32        | Sarix Enhanced Box: Low-light, WDR, day-night, network camera with built-in analytics |

## SOFTWARE FEATURES

- Multilingual menus in user interface: English, French, Italian, German, Spanish, Portuguese, Russian, Chinese, Turkish
- 16 window blanks, configurable in size
- Password protection
- Snapshot with JPEG capture at the same resolution as the highest stream configured
- Text overlays for camera name, time, date
- Image Overlays

## MINIMUM SYSTEM REQUIREMENTS

|                   |                                                                                                                                                                                |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor         | Intel® Core™ i3 processor, 2.4 GHz                                                                                                                                             |
| Operating System  | Microsoft® Windows® 7 (32- and 64-bit),, or DirectX®11, Windows XP Service Pack 3 with DirectX 9.0c or Mac® OS X 10.4 (or later)                                               |
| Memory            | 4 GB RAM                                                                                                                                                                       |
| Network Interface | 100 megabits (or greater)                                                                                                                                                      |
| Monitor           | Minimum of 1024 x 768 resolution, 16- or 32-bit pixel color resolution                                                                                                         |
| Web Browser       | Internet Explorer® 8.0 (or later), Google Chrome™ (51 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 for Windows 7, XP, or Vista; or QuickTime 7.6.4 for Mac OS X 10.4 (or later)                                                                                |

## ANALYTICS

Required Systems for Analytics

|                 |                                                                                                                                           |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Pelco Interface | WS5200 Advanced System Management Software on an Endura (2.0 or later) system                                                             |
| Open API        | The Pelco API can transmit behavior alarm data to third-party applications, available at <a href="http://pdn.pelco.com">pdn.pelco.com</a> |

## INTEGRATION

|                          |                                                                  |
|--------------------------|------------------------------------------------------------------|
| Pelco System Integration | VideoXpert; Endura 2.0 (or later); Digital Sentry 7.3 (or later) |
| Open API                 | Pelco API or ONVIF Profile S, G, and Q                           |
| Mobile Application       | Integrated with Pelco Mobile Application                         |

## CERTIFICATIONS/RATINGS

- CE (Class A)
- FCC (Class A)
- ICES-003 (Class A)
- UL/cUL Listed
- UL/IEC 60950-22
- KC
- RCM
- RoHS
- ONVIF Profile S, Profile G, and Profile Q Conformant

## RECOMMENDED MOUNT

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

## RECOMMENDED ENCLOSURES

|             |                                                                                                                                                                                                                                    |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EH16 Series | PoE and 24 VAC indoor/environmental enclosures<br>(Note: The 230 VAC EH16 enclosure model is not compatible with this camera. The combination of the 15 ~ 50 mm lens and this camera will not fit into the EH16 Series enclosure.) |
| EH35 Series | Indoor and environmental enclosures                                                                                                                                                                                                |
| EH47 Series | Indoor and environmental enclosures                                                                                                                                                                                                |

## RECOMMENDED LENSES

|               |                                        |
|---------------|----------------------------------------|
| YV3.3X15SR4A  | MPx lens, varifocal, 15 ~ 50 mm, f/1.5 |
| YV2.8X2.8SR4A | MPx lens, varifocal, 2.8 ~ 8 mm, f/1.3 |
| YV2.7X2.2SR4A | MPx lens, varifocal, 2.2 ~ 6 mm, f/1.3 |

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