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
- Built-in Analytics Suite
- Up to 128 GB Edge Storage with SD Card

NEW

SureVision™ 3.0
A Pelco™ by Schneider Electric™ technology

- Electronic Image Stabilization (EIS)
- Compatible with Pelco and Third-Party Video Systems
- ONVIF Profile S, Profile G, and Profile Q Conformant
- Full 3-Year Warranty and Support

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

PELCO
by Schneider Electric

ONVIF | SGQ

International Standards Organization Registered Firm; ISO 9001 Quality System

ISO 9001 CERTIFIED

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.

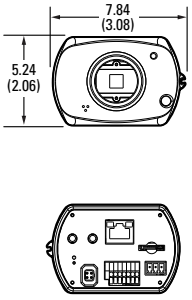
Analytics behaviors can be scheduled to work during a certain time or condition. For example, during the day, a camera can be configured with Object Counting to count the number of people that enter a lobby door. At night, the operator can change the profile to Camera Sabotage to trigger an alarm if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

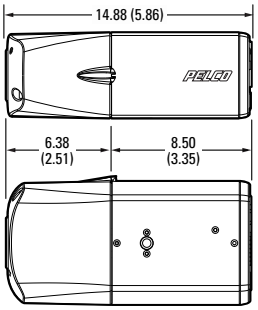
- **Abandoned Object:** Detects objects placed within a defined zone and triggers an alarm if the object remains in the zone longer than the user-defined time allows. An airport terminal is a typical installation for this behavior. This behavior can also detect objects left behind at an ATM, signaling 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, matte black
- 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)
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; 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; Single-ended, 1 Vp-p max. signal level
Compression	G.711and 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 (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 Auto MDI/MDI-X
Cable Type	Cat5 or better for 100Base-TX
Input Power	PoE (IEEE 802.3af, Class 3), 24 VAC, 12 VDC
Power Consumption	Up to 12W nominal
Current Consumption	330 mA @ POE; 0.5 A @ 24 VAC; 1A @ 12 VDC
Local Storage	Micro SD, SDHC, SDXC
Alarm	
Unsupervised Input	Detects open or closed alarm state 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
2 MPx and 1 MPx		1.2	1280	960
0.5 MPx		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
1 MPx		0.9 (720p)	1280	720
		0.6	1024	576
		0.5	960	544
0.5 MPx		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
Image Stabilization	Electronic Image Stabilization (EIS)

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 *pdn.pelco.com*

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
- ONVIF Profile S, Profile G, and Profile Q Conformant

*At the time of this publication, certifications are pending. Consult the factory or www.pelco.com for the current status of certifications.

RECOMMENDED MOUNT

C10-UM	Universal camera mount

RECOMMENDED ENCLOSURES

EH16 Series	Indoor and environmental enclosures (Note: This enclosure is not compatible with a 15 ~ 50 mm lens.)
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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