

Sarix® IXE Series Box IP Cameras

UP TO 4K, WDR AND LOW-LIGHT PERFORMANCE, H.264, H.265

Product Features

- SureVision Technology (Advanced Low-Light & WDR Performance Simultaneously, Anti-Bloom Technology, 3D Noise Filtering, and Enhanced Tone Mapping)
- Up to 8 Megapixel (MP) Resolution (4K)
- Up to 120 Frames per Second (fps) at 1080p on select models
- Up to 130 dB Wide Dynamic Range (2 MP and 3 MP Models), Up to 120 dB Wide Dynamic Range (5 MP and 4K Models)
- Robust Electronic Image Stabilization
- Built-in Pelco Enhanced Analytics Suite & Capable of Advanced Deep Learning Analytics Available Separately
- H.265, H.264, and MJPEG Encoding with Pelco Smart Compression
- Supports i-CS Megapixel Lenses (Sold Separately As Accessories)
- Power over Ethernet (PoE), 24 VAC, 12 VDC
- Power Redundancy Between PoE and 12 VDC / 24 VAC



- Support for Local Storage with Micro SD Slot for SDHC/SDXC Card
- Compatible with Pelco and Third-Party Video Systems
- ONVIF Profile S, Profile G, Profile M, and Profile T Conformant
- Full 3-Year Warranty and Support

Sarix Enhanced Range with SureVision

Sarix® Enhanced (E) range cameras feature SureVision technology, delivering up to 8 MP high definition (HD) resolution (2 MP, 3 MP, 5 MP, and 8 MP options are available) 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.

With Electronic Image Stabilization enabled by built-in Gyro technology, Sarix Enhanced cameras always provide sharp, stable images even during vibration/wind environment.

Power redundancy between PoE and 12 VDC/24 VAC ensures 24-hour, 365-day continuous operation even under unstable power supply situations.

The IXE Series Box Camera

Within the **Sarix Enhanced** Range, the IXE Series Box Cameras are compatible with a choice of standard iCS (Intelligent CS-mount) Megapixel Lenses for wide angle or long range surveillance needs. Equipped with motors, iCS lenses enable auto and remote control zoom, focus, and iris for IXE Series Box Cameras. This not only allows for quick and easy installation, but also optimization of the image quality. A System Watchdog feature automatically restarts the camera if a malfunction is detected.

Video

The IXE Series supports three independently-configurable video streams. The three streams can be compressed with efficient H.265, H.264 High or Main profiles, or MJPEG formats. The streams can be configured to a variety of frame rates, variable bit rates, and group of pictures (GOP) structures to optimize image quality with bandwidth and storage efficiency. In addition, streams can be encoded as constrained variable bit rate (CVBR) or constant bit rate (CBR). Pelco Smart Compression is available on both H.264 and H.265, optimizing between bandwidth and image quality and can reduce storage by up to 70% depending on the scene.

Open and Integrated

Sarix Enhanced range cameras seamlessly connect to Pelco video management systems such as VideoXpert™, VxToolbox, 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, M, and T standards.

POWER REDUNDANCY

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 uninterruptible power supply (UPS).

The cameras also support power supply failover between PoE and 12 VDC/24 VAC. If the camera is running with both PoE power and 12 VDC/24 VAC power supplied, and then PoE power is lost, the camera will switch to 12 VDC/24 VAC without any interruption or video loss. Once PoE power is restored, the camera will reboot and then run using PoE power.

PELCO ENHANCED ANALYTICS SUITE

Sarix Enhanced range cameras includes two Basic and seven Enhanced user-configurable behaviors to enhance the flexibility and performance of the camera. The camera is capable of running up to two Enhanced behaviors in addition to the two Basic behaviors at the same time.

For each behavior, 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.

Available behaviors include:

- **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.
- **Region-Based Simple Motion Detection:** Based on sensitivity, the camera determines if sufficient motion is detected within a configurable region.

Available Enhanced analytic behaviors include:

- **Abandoned Object:** Detects objects placed within a defined zone and triggers an alarm if the object remains in the zone unattended. 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 too long. 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.

PELCO'S SMART COMPRESSION TECHNOLOGY

Pelco's 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.

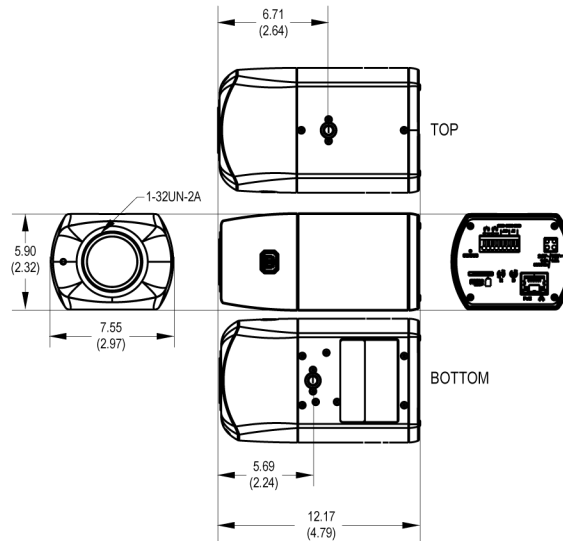
Pelco's Smart Compression Technology dynamically analyzes motion occurring within live video in real-time, to intelligently compress the information you don't need, while retaining details with clear quality in the areas that are important in the scene. By enabling Dynamic GOP, an added feature of Smart 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

COMPONENT FEATURES



VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.



Environmental/Vandal-Resistant

- Black, RAL 9011
 - Aluminum Construction
 - Recommended Lenses (MI2.8-8.5P, MI3.9-10P, MI9-50P)
 - Recommended Mounts (C11-UM, CM1751, TB1751)
 - Recommended Enclosures (EH20 Series*, EHS8000 Series*)
 - Built-in Microphone
- *Not all lens/camera combinations supported.

CAMERA

Imaging Device	1/2.8 (2 MP or 3 MP sensors) or 1/1.8 (5 MP or 8 MP/4K sensors)
Imager Type	CMOS
Imager Readout	Progressive scan
Highest Resolution	
8 MP (4K)	3840 x 2160
5 MP	2592 x 1944
3 MP	2048 x 1536
2 MP	1920 x 1080
Signal-to-Noise Ratio	>50 dB
Electronic Shutter Range	1/10,000 sec (or faster) to 1sec

Wide Dynamic Range	Up to 130 dB (2 MP and 3 MP Models), Up to 120 dB (5 MP and 8 MP/4K Models), Per IEC 62676
White Balance	Range: 2,500° to 10,000°K; Selectable Auto/ Manual
Day/Night Capabilities	Mechanical IR cut filter (ON/OFF/AUTO), with different set points on lux
3D Noise Reduction	Yes (ON / OFF selectable)

Minimum Illumination

Resolution	Lens	Sensitivity	Color		Mono	
			33 ms	500 ms	33 ms	500 ms
2 MP	2.8-8.5	f/1.2	0.0125 lux	0.0011 lux	0.005 lux	0.00045 lux
2 MP	3.9-10	f/1.5	0.025 lux	0.0023 lux	0.013 lux	0.00118 lux
2 MP	9-50	f/1.5	0.025 lux	0.0023 lux	0.013 lux	0.00118 lux
3 MP	2.8-8.5	f/1.2	0.05 lux	0.0045 lux	0.01 lux	0.00091 lux
3 MP	3.9-10	f/1.5	0.085 lux	0.0077 lux	0.043 lux	0.00391 lux
3 MP	9-50	f/1.5	0.085 lux	0.007 lux	0.043 lux	0.00391 lux
5 MP & 8 MP (4K)	3.9-10	f/1.5	0.095 lux	0.0086 lux	0.06 lux	0.00545 lux
5 MP & 8 MP (4K)	9-50	f/1.5	0.095 lux	0.0086 lux	0.06	0.00545 lux

TECHNICAL SPECIFICATIONS

LENSING

Lens Mount CS thread, 1-32UN-2A

Auto Iris Type Supports P-Iris

Field of View in Degrees*

***Note:** Field of view may vary with changes in resolution settings.

Lens	Angle of View	2 MP	3 MP	5 MP	8 MP
2.8 - 8 mm	Horizontal	121° ~ 40°	109° ~ 36°	*	*
	Vertical	62° ~ 22°	79° ~ 27°	*	*
3.9 - 10 mm	Horizontal	84° ~ 33°	76° ~ 31°	119° ~ 45°	119° ~ 45°
	Vertical	45° ~ 19°	55° ~ 23°	62° ~ 26°	62° ~ 26°
9 - 50 mm	Horizontal	34° ~ 6.6°	31° ~ 6.1°	46° ~ 9.0°	46° ~ 9.0°
	Vertical	19.1° ~ 3.8°	23° ~ 4.6°	26° ~ 5.2°	26° ~ 5.2°

*This lens is not supported with these MP cameras.

AUDIO

Streaming Bidirectional: full or half duplex
Built-in Microphone 60 SPL @ 25 ft >40 dB SNR
Input Line level, 3K ohm differential with/1Vp-p maximum signal
Output Line level, 600 ohm differential with/1Vp-p
Encoding G.711-ALaw/G711-ULaw

GENERAL

Construction Aluminum
Finish Black, RAL 9011
Weight 0.48 kg (1.06 lb) (Unit),
0.63 kg (1.34 lb) (Shipping)

ENVIRONMENTAL

Operating Temperature -10° to 55°C (14° to 131°F)
Start-up Temperature -10°C (14°F)
Storage Temperature -40° to 60°C (-40° to 140°F)
Operating Humidity 10 to 90%, RH noncondensing
Storage Humidity 20 to 80%, RH noncondensing
Shock and Vibration Resistance Tested in accordance to IEC/EN 60068:2-6 and 2-27

TECHNICAL SPECIFICATIONS

ELECTRICAL

Network Port	RJ-45 connector for 100Base-TX*/1000Base-T, Automatic MDI/MDI-X
*Some combinations of high resolution, frame rate, and high numbers of unicast streams, may lead to less desirable results at 100Base-TX.	
Input Power	PoE (IEEE 802.3af, Class 3), 24 VAC (18 ~ 32 VAC), 12 VDC \pm 10%
Power Consumption	7.6 W typical, 12.95 W maximum
Local Storage	Micro SD, SDHC, SDXC compatible; Up to 2 TB addressable (256 GB testable)
Alarm Input	Detects open or closed alarm state Quantity 1, Normally Open, Normally Closed, Supervised,
Output	3.5 VDC maximum, 35 mA maximum Quantity 1, \pm 32 VDC maximum, 150 mA maximum

NETWORK

Supported Protocols	TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, SSL, SMTP, FTP, 802.1x (EAP), and NTCIP 1205, IGMP, TLS/TLS, ARP, ICMP
Users	
Unicast	Two guaranteed (up to 20 depending on the resolution settings)
Multicast	Unlimited
Security Access	Password protected, HTTP, IEEE 802.1X, digest authentication, IP filtering
Software Interface	Web browser view and setup

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	1 gigabit (or greater)
Monitor	Minimum of 1024 x 768 resolution, 16- or 32-bit pixel color resolution
Web Browser	Internet Explorer® 10 (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

INTEGRATION

Pelco System Integration	VideoXpert; Endura 2.0 (or later); Digital Sentry 7.3 (or later)
Open API	Pelco API or ONVIF Profile S, Profile G, Profile M, and Profile T
Mobile Application	Pelco Mobile Application
Camera Discovery	VxToolbox
Firmware Upgrade	Web UI or VxToolbox
Multilingual User Interface	English, French, Italian, German, Spanish, Korean, Portuguese, Russian, Simplified Chinese, Turkish

VIDEO

Video Streams	Up to three simultaneous streams, the second stream and third stream are variable based on the setup of the primary stream
Available Resolutions	8 MP/4K 3840 x 2160 to 512 x 384; 5 MP 2592 x 1944 to 512 x 384; 3 MP 2048 x 1536 to 640 x 360; 2 MP 1920 x 1080 to 512 x 384
Maximum Frame Rate	Up to 120 fps at 1080p on the 3MP models, Up to 60 fps at 1080p on all models, Up to 30 fps at full resolution with WDR on all models
Video Encoding	H.265, H.264 Main/High, MJPEG
Bit Rate Control	Constrained variable bit rate (CVBR) and constant bit rate (CBR)
Orientation Modes	Electronic image rotation 90, 180, and 270 degrees (Corridor Mode)
Video Snapshot	JPEG capture at the same resolution as the highest stream configured
Window Blanking	16 configurable Windows
Electronic Image Stabilization	Yes (ON / OFF selectable)
Video Overlay	Camera name, time, date, and customizable text with multiple supported languages. Embedding of custom images and logos supported.
Flicker Correction	Selectable Auto On/Off, 50 Hz or 60 Hz modes

TECHNICAL SPECIFICATIONS

MODELS

Resolution	Model Number	Description
2 MP	IXE23	Sarix Enhanced Box IP Camera
3 MP	IXE33	Sarix Enhanced Box IP Camera
5 MP	IXE53	Sarix Enhanced Box IP Camera
8 MP (4K)	IXE83	Sarix Enhanced Box IP Camera

RECOMMENDED MOUNTS

C11-UM	Gang box mount
CM1750	Pedestal mount
TB1751	T-rail mount

RECOMMENDED LENSES

MI2.8-8.5P*	MP iCS lens 2.8-8.5 mm
MI3.9-10P	MP iCS lens 3.9-10 mm
MI9-50P	MP iCS lens 9-50 mm

*Compatible with IXE23 and IXE33 only.

RECOMMENDED ENCLOSURES

EH20 Series	Compact, indoor/environmental, IP-enabled enclosures
EHS8000 Series	Rugged, outdoor, stainless steel enclosures

POWER SUPPLIES

WCS Series	Outdoor, 24 VAC power supply
POE130-XT	Single-port PoE Gigabit extender powered by POE190-BT injector
POE130-AT (US or EU)	Single-port PoE+ midspan with power cord
POE430-AT (US or EU)	4-port, 30W per port PoE midspan with power cord
POE1236-AT (US or EU)	12-port, 36W PoE midspan
POE2436-AT (US or EU)	24-port, 36W PoE midspan

CERTIFICATIONS/RATINGS

- CE (Class A)
- FCC (Class A)
- ICES-003 (Class A)
- UL/cUL Listed
- UL/IEC/EN 60950-1, 62368-1
- KC*
- NOM
- RCM
- EAC*
- BIS
- ONVIF Profile S, Profile G, Profile M, and Profile T Conformant

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

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⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo - www.P65Warnings.ca.gov.

⚠ **AVERTISSEMENT:** Cancer et Troubles de l'appareil reproducteur - www.P65Warnings.ca.gov.

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