

# Sarix® IXP Series Box Cameras

UP TO 5MP, H.264, H.265, IP BOX CAMERAS WITH TRUE WDR

## Product Features

- H.265, H.264 Main, High, MJPEG video encoding
- Up to 5 megapixel (MP) resolution at 30 frames per second
- Up to 60 images per second (ips) at 4 MP for 5MP cameras
- Micro SDHC & SDXC 2TB addressable, 128 GB testable
- Pelco Pro Analytics Suite including Adaptive Motion, Object Counting, Motion Detection, Camera Sabotage
- Operating temperature from -10° to 55°C (14° to 131°F)
- 24 VAC, 12 VDC, IEEE802.3af Power over Ethernet (PoE)
- Pelco Smart Compression Technology
- Choice of standard CS megapixel lenses
- Compatible with Pelco and third-party video management systems

## Sarix Professional Range

Powerful, versatile, and affordable, the **Sarix® Professional (P)** range cameras pack the most popular features and functionality of Sarix technology into a wide range of indoor and outdoor options, including bullet cameras and domes. There is also a vandal resistant wedge camera and a box camera. Mix and match the performance options and form factor you need for almost any lighting condition, environment, and application.

### Camera

Within the **Sarix Professional Range**, the **IXP 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 IXP Series features advanced color science and true WDR for increased visibility in difficult lighting situations.

### Video

**Sarix Professional** provides options for three simultaneous 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 and variable bit rates to optimize image quality with bandwidth and storage efficiency. Pelco Smart Compression is available on both H.264 and H.265, minimizing storage and bandwidth utilization.



- ONVIF Profile S, Profile G, and Profile T conformant
- Full 3-year warranty and support

## Edge Storage

**Sarix Professional** range cameras feature onboard edge storage with a micro SDHC/SDXC card. Video clips of varying lengths can be stored to the card upon alarm, or video can be written continuously to the SD card in the case of network outage. Video can be retrieved from the card through the FTP protocol or by using an ONVIF Profile G compliant client.

## Open and Integrated

**Sarix Professional** 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 Professional** range cameras integrate with major third-party systems through the open Pelco API or the ONVIF Profile S, Profile G, and Profile T standards.

## Standard Web Interface

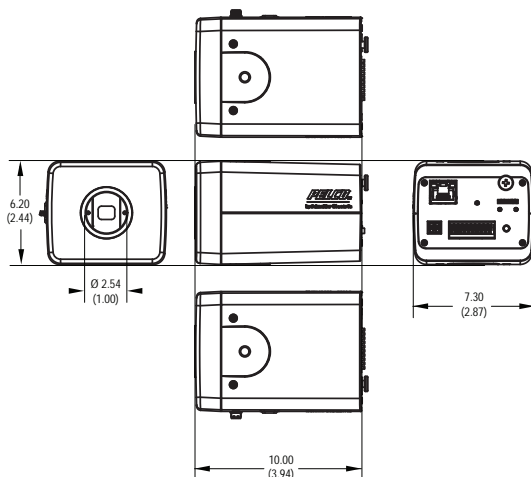
Pelco cameras use a standard Web browser interface for easy remote setup and administration. Controls are optimized for convenient one-step camera configuration for features including color, exposure, flicker control, backlight compensation, and streaming.

# TECHNICAL SPECIFICATIONS

## COMPONENT FEATURES



VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.



### Box

- Black, RAL 9011
- Aluminum

## CAMERA

Imaging Device	1/2.8-inch
Imager Type	CMOS
Imager Readout	Progressive scan
Highest Resolution	
5 MP	2592 x 1944
3 MP	2048 x 1536
2 MP	1920 x 1080
1 MP	1280 x 960
3D Noise Reduction	Yes (ON/OFF selectable)
Signal-to-Noise Ratio	>50 dB
Auto Back Focus	Yes
Electronic Shutter Range	1/32,000 sec ~ 1 sec
True Wide Dynamic Range	Up to 120 dB, per IEC62676
White Balance	Range: 2,000° to 10,000°K; Selectable ATW (Auto Tracing White Balance), Auto, & Manual
Day/Night Capabilities	Mechanical IR Cut Filter (ON/OFF/AUTO), with different set points on lux

### Minimum Illumination

MP	Sensitivity	Color		Mono	
		33 ms	200 ms	33 ms	200 ms
5 MP	f/1.3	0.26 lux	0.065 lux	0.15 lux	0.0375 lux
3 MP	f/1.3	0.065 lux	0.01625 lux	0.03 lux	0.0075 lux
2 MP	f/1.3	0.0169 lux	0.00416 lux	0.01 lux	0.0025 lux
1 MP	f/1.3	0.0169 lux	0.00416 lux	0.01 lux	0.0025 lux

**\*Note:** The minimum illumination values will change depending on the lens used.

# TECHNICAL SPECIFICATIONS

## 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, 802.1x (EAP), and NTCIP 1205, ARP, DDNS, ICMP, IGMP, RTCP, SFTP, SIP, TLS/TLS, WS-discovery
Users	
Unicast	Up to 5 simultaneous users depending on resolution settings (3 guaranteed streams)
Multicast	Unlimited, H.264/H.265
Security Access	Password Protected, HTTPS, IEEE 802.1X, Digest Authentication, IP Filtering
Software Interface	Web browser view and setup

## LENSING

Lens Mount	CS thread
Auto Iris Type	DC-iris, P-Iris
Field of View	Refer to recommended Lenses

## AUDIO

Streaming	Bidirectional full duplex
Input	Line Level, 3K ohm differential w/ 1Vp-p max signal
Output	Line Level, 600 ohm differential w/ 1Vp-p
Encoding	G711-Alaw / G711-Ulaw

## GENERAL

Construction	
Material	Aluminum
Finish	RAL 9011, black
Weight	
Unit	0.42 kg (0.926 lb)
Shipping	0.58 kg (1.28 lb)

## ENVIRONMENTAL

Operating Temperature	-10° to 55°C (14° to 131°F)
Storage Temperature	-40° to 70°C (-40° to 158°F)
Operating Humidity	5 to 90%, RH noncondensing
Storage Humidity	20 to 80%, RH noncondensing

## ELECTRICAL

Network Port	RJ-45 Connector, 10/100Base-Tx
RS-485	Yes
Input Power	IEEE802.3af PoE, 18 ~ 32 VAC, 12 +/-10% VDC
Local Storage	Micro SDHC & SDXC 2TB addressable, 128G or more testable

Model	Power Input	Power Consumption (Watts or VA)	
		Typical	Maximum
IXP13 IXP23	12 VDC	3.5 W	7.7 W
	24 VAC	3.7 VA	8.3 VA
	PoE	3.9 W	10.4 W
IXP33	12 VDC	4 W	8.5 W
	24 VAC	4 VA	9.4 VA
	PoE	5 W	12.1 W
IXP53	12 VDC	5.2 W	9.8 W
	24 VAC	6.2 VA	10.8 VA
	PoE	6.6 W	12.5 W

Alarm	
Input	1, PhotoMOS™ relay (30 V, 1 A)
Output	1, PhotoMOS™ relay (30 V, 1 A)
Triggers	Unsupervised mode that detects switch closures (Normally Open and Normally Closed)

# TECHNICAL SPECIFICATIONS

## PELCO PRO ANALYTICS SUITE

Sarix Professional range cameras feature the Pro suite of video analytics including Motion Detection, Camera Sabotage, Audio Detection, Object Counting, Adaptive Motion, Object Removal, and Directional Motion.

Simple Motion Detection algorithms allow the camera to record or send an alarm when there is motion detected in a selected zone or with the entire scene.

A Camera Sabotage alarm is triggered if the lens is obstructed or when the camera is repositioned.

Audio Detection allows user to define an audio intensity threshold to trigger surrounding audio.

Object Counting counts the number of moving objects passing through the defined virtual lines.

Adaptive Motion detects moving objects crossing defined lines and entering a defined target area.

Object Removal: This behavior detects moving objects that leave the target area.

Directional Motion detects objects moving in disallowed directions.

## 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 informed optimization between 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 extent of motion occurring, up to 70% bandwidth savings can be achieved.

## INTEGRATION

Video Management	VideoXpert; VXToolbox; Endura version 2.0 (or later); Digital Sentry 7.3 (or later);
Open API	Third-party VMS through Pelco API, ONVIF Profile S, Profile G, and Profile T
Mobile Application	Pelco Mobile
Local Storage	Capture 1-, 5- or 10-second video clips on camera sabotage, motion detection, or alarm input; record video continuously in the case of network outage with option to overwrite; access video through FTP protocol and ONVIF Profile G
Camera Discovery	VX Toolbox
Firmware Upgrade	Web UI or VX Toolbox
Web Browser Support	Microsoft® Internet Explorer® 8.0, Mozilla® Firefox® 3.5, Google® Chrome™ 61.0 and later
Multilingual User Interface	English, French, German, Italian, Portuguese, Arabic, Russian, Spanish, Turkish, Korean, Simplified Chinese

# TECHNICAL SPECIFICATIONS

## VIDEO

Video Streams

Up to 3 simultaneous streams, the second and third stream are variable based on the setup of the primary stream

Video Overlay

Camera name, time, date, and customizable text with multiple supported languages. Embedding of custom images and logos supported.

Available Resolutions

MP	Width	Height	Aspect Ratio
5.0	2592	1944	4:3
3.7	2560	1440	16:9
3.2	2048	1536	4:3
3	2304	1296	16:9
2.1	1920	1080	16:9
1.9	1600	1200	4:3
1.2	1280	960	4:3
0.9	1280	720	16:9
0.5	800	600	4:3
0.3	640	480	4:3
0.2	640	360	16:9
0.1	320	240	4:3
0.1	320	180	16:9

Frame Rates

MP	Images per Second (ips)
5 MP	60, 50, 30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1
3 MP	30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1
2 MP	30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1
1 MP	30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1

**Note:** Available frame rates are selectable for each independent stream depending on the coding, resolution, and stream configuration.

Maximum Frame Rate

Up to 60 frames per second at 4 MP on 5 MP model

Video Encoding

H.265, H.264 Main/High, MJPEG

Bit Rate Control

Constrained variable bit rate (CVBR) with configurable maximum value and constant bit rate (CBR)

Orientation Modes

Corridor Mode, Mirror Mode, Flip Mode.  
Electronic image rotation 90, 180, 270 degrees

Window Blanking

8 configurable windows

Flicker Control

Selectable 50 Hz or 60 Hz Modes

## 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™ (61.0 or later) or Mozilla® Firefox®  
3.5 (or later); Internet Explorer 8.0 (or later) is  
recommended for configuring analytics

# TECHNICAL SPECIFICATIONS

## MODELS

Resolution	Model Number	Description
1 MP	IXP13	Sarix Professional Series Box Camera
2 MP	IXP23	Sarix Professional Series Box Camera
3 MP	IXP33	Sarix Professional Series Box Camera
5 MP	IXP53	Sarix Professional Series Box Camera

## CERTIFICATIONS/RATINGS

- CE - EN55032 (Class A), EN 50130-4, EN 60950-1
- FCC (Class A) - 47 CFR Part 15
- ICES-003 (Class A)
- UL/cUL Listed - UL 60950-1, CAN/CSA C22.2 No. 60950-1-07
- KCC
- RCM
- NOM
- EAC
- BIS
- ONVIF Profile S, Profile G, and Profile T Conformant

## RECOMMENDED MOUNT

C11-UM	Gang box mount
CM1751	Pedestal mount
TB1751	T-rail mount

## RECOMMENDED ENCLOSURES

EH14 Series*	PoE and 24 VAC indoor/environmental enclosures
EH20 Series*	Indoor and environmental enclosures
EHS8000 Series*	Indoor and environmental enclosures

\*Not all box/lens types supported.

## RECOMMENDED LENSES

M2.8-8.5P	1-5 MP CS lens, varifocal, 2.8 ~ 8.5 mm, f/1.2
M9-40P	1-5 MP CS lens, varifocal, 9 ~ 40 mm, f/1.5
M1.8-3	1-5 MP CS lens, varifocal, 1.8 ~ 3 mm, f/1.8
YV3.3X15SR4A	1-3 MP CS lens, varifocal, 15 ~ 50 mm, f/1.5
YV2.8X2.8SR4A	1-3 MP CS lens, varifocal 2.8 ~ 8 mm, f/1.3
YV2.7X2.2SR4A	1-3 MP CS lens, varifocal 2.2 ~ 6 mm, f/1.3
MI2.8-8.5P	iCS lens 2.8 ~ 8.5 mm
MI3.9-10P	iCS lens 3.9 ~ 10 mm
MI9-50P	MPx iCS lens 9 ~ 50 mm

⚠ **WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).  
⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).  
⚠ **AVERTISSEMENT:** Cancer et Troubles de l'appareil reproducteur - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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