Sarix® IWP Series Vandal Resistant Wedge
UP TO 5 MEGAPIXEL, H.264, H.265, IR ENVIRONMENTAL IP DOMES

Product Features
- H.265, H.264 Main, High, MJPEG video encoding
- Up to 5 megapixel (MP) resolution
- Up to 60 images per second (ips) at 4 MP for 5MP cameras
- Micro SDHC & SDXC 2TB addressable, 128G or more testable
- IR illumination up to 25 m
- Operating temperature from –20° to 55°C (–4° to 131°F)
- Pelco Pro Analytics Suite including Adaptive Motion, Object Counting, Motion Detection, Camera Sabotage
- IEEE802.3af Power over Ethernet (PoE)
- Pelco Smart Compression Technology
- Vandal resistant to IK10
- IP66/67 ingress protection
- Compatible with Pelco and third-party video management systems
- ONVIF Profile S, Profile G, Profile Q, and Profile T conformant
- Full 3-year warranty and support

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 are also options such as a vandal resistant wedge and a box camera. Mix and match the performance options and form factor you need for almost any lighting condition, environment, and application.

IWP Series Wedge Camera
Within the Sarix Professional range, the Sarix IWP Series IR vandal resistant wedge cameras feature multiple options on the fixed lens for surveillance needs in tight spaces. Additionally, the Sarix IWP Series features advanced color science and true WDR for visibility in difficult lighting conditions. IK10, IP66/67, and Type 4X compliance ensure enough robustness for challenging environments.

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.

Edge Storage
Sarix Professional range cameras feature onboard edge storage with a micro SDHC and 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™, VX Toolbox 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, Profile Q, 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.
COMPONENT FEATURES

VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.

CAMERA

Imaging Device
- **MP**
  - 1 MP: 1/2.8-inch, 1280 x 960 (1 MP)
  - 2 MP: 1/2.8-inch, 1920 x 1080 (2 MP)
  - 3 MP: 1/2.8-inch, 2048 x 1536 (3 MP)
  - 5 MP: 1/2.8-inch, 2592 x 1944 (5 MP)

Imager Type: CMOS
Imager Readout: Progressive scan
Electronic Shutter Range: 1/10,000 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, and Manual
Noise Reduction: Yes (ON/OFF selectable)

Minimum Illumination

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Lens</th>
<th>Sensitivity</th>
<th>Color</th>
<th>Mono</th>
<th>Mono (IR on)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>33 ms</td>
<td>200 ms</td>
<td>33 ms</td>
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<tr>
<td>1 MP</td>
<td>2.8 mm</td>
<td>1/2.0</td>
<td>0.15 lux</td>
<td>0.038 lux</td>
<td>0.01 lux</td>
</tr>
<tr>
<td>2 MP</td>
<td>2.4 mm</td>
<td>1/2.1</td>
<td>0.15 lux</td>
<td>0.038 lux</td>
<td>0.01 lux</td>
</tr>
<tr>
<td>2 MP</td>
<td>2.8 mm</td>
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<td>0.15 lux</td>
<td>0.038 lux</td>
<td>0.01 lux</td>
</tr>
<tr>
<td>2 MP</td>
<td>4 mm</td>
<td>1/1.8</td>
<td>0.15 lux</td>
<td>0.038 lux</td>
<td>0.01 lux</td>
</tr>
<tr>
<td>2 MP</td>
<td>6 mm</td>
<td>1/2.0</td>
<td>0.15 lux</td>
<td>0.038 lux</td>
<td>0.01 lux</td>
</tr>
<tr>
<td>3 MP</td>
<td>2.8 mm</td>
<td>1/2.0</td>
<td>0.25 lux</td>
<td>0.036 lux</td>
<td>0.01 lux</td>
</tr>
<tr>
<td>5 MP</td>
<td>2.4 mm</td>
<td>1/2.1</td>
<td>0.30 lux</td>
<td>0.03 lux</td>
<td>0.01 lux</td>
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<tr>
<td>5 MP</td>
<td>2.8 mm</td>
<td>1/2.0</td>
<td>0.30 lux</td>
<td>0.03 lux</td>
<td>0.01 lux</td>
</tr>
</tbody>
</table>

Surface Mount
- RAL 9003
- IP66/67 Ingress Protection
- Type 4X
- IK10 (20 Joules) Impact Resistance
- Aluminum Body; Polycarbonate Bubble

Day/Night Capabilities: Mechanical IR Cut Filter (ON/OFF/AUTO), with different set points on lux
Signal to Noise Ratio: ≥50 dB
IR Illumination: 850 nm Adaptive IR, up to 25 m; auto ON in night mode, or OFF
## TECHNICAL SPECIFICATIONS

### LENS
- **Lens Type**: Built-in; fixed, factory focused
- **Focal Length**: f/1.8, 4 mm; f/2.0, 6 mm; f/2.0, 2.8 mm; f/2.1, 2.4 mm
- **Field of View**: *Field of view may vary with changes in resolution settings.*

<table>
<thead>
<tr>
<th>Angle of View</th>
<th>IWP133-1ERS 1 MP 2.8 mm</th>
<th>IWP233-1ERS 2 MP 2.8 mm</th>
<th>IWP333-1ERS 3 MP 2.8 mm</th>
<th>IWP533-1ERS 5 MP 2.8 mm</th>
<th>IWP234-1ERS 2 MP 4 mm</th>
<th>IWP236-1ERS 2 MP 6 mm</th>
<th>IWP232-1ERS 2 MP 2.4 mm</th>
<th>IWP532-1ERS 5 MP 2.4 mm</th>
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<tbody>
<tr>
<td>Diagonal</td>
<td>132°</td>
<td>134°</td>
<td>124.6°</td>
<td>123.6°</td>
<td>104°</td>
<td>62.8°</td>
<td>156°</td>
<td>162°</td>
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<tr>
<td>Horizontal</td>
<td>112°</td>
<td>113°</td>
<td>99°</td>
<td>104.4°</td>
<td>87.6°</td>
<td>54.4°</td>
<td>135°</td>
<td>130°</td>
</tr>
<tr>
<td>Vertical</td>
<td>60°</td>
<td>61°</td>
<td>74.2°</td>
<td>75°</td>
<td>46.2°</td>
<td>30.1°</td>
<td>75°</td>
<td>93°</td>
</tr>
</tbody>
</table>

### VIDEO
- **Video Streams**: Up to 3 simultaneous streams, the second stream 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.

<table>
<thead>
<tr>
<th>Available Resolutions</th>
<th>MP</th>
<th>Width</th>
<th>Height</th>
<th>Aspect Ratio</th>
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<tbody>
<tr>
<td></td>
<td>5.0</td>
<td>2592</td>
<td>1944</td>
<td>4:3</td>
</tr>
<tr>
<td></td>
<td>3.7</td>
<td>2560</td>
<td>1440</td>
<td>16:9</td>
</tr>
<tr>
<td></td>
<td>3.2</td>
<td>2048</td>
<td>1536</td>
<td>4:3</td>
</tr>
<tr>
<td></td>
<td>3.1</td>
<td>2304</td>
<td>1296</td>
<td>16:9</td>
</tr>
<tr>
<td></td>
<td>2.1</td>
<td>1920</td>
<td>1080</td>
<td>16:9</td>
</tr>
<tr>
<td></td>
<td>1.9</td>
<td>1600</td>
<td>1200</td>
<td>4:3</td>
</tr>
<tr>
<td></td>
<td>1.2</td>
<td>1280</td>
<td>960</td>
<td>4:3</td>
</tr>
<tr>
<td></td>
<td>0.9</td>
<td>1280</td>
<td>720</td>
<td>16:9</td>
</tr>
<tr>
<td></td>
<td>0.5</td>
<td>800</td>
<td>600</td>
<td>4:3</td>
</tr>
<tr>
<td></td>
<td>0.3</td>
<td>640</td>
<td>480</td>
<td>4:3</td>
</tr>
<tr>
<td></td>
<td>0.2</td>
<td>640</td>
<td>360</td>
<td>16:9</td>
</tr>
<tr>
<td></td>
<td>0.1</td>
<td>320</td>
<td>240</td>
<td>4:3</td>
</tr>
<tr>
<td></td>
<td>0.1</td>
<td>320</td>
<td>180</td>
<td>16:9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frame Rates</th>
<th>MP</th>
<th>Images per Second (ips)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>3 MP</td>
<td>30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1</td>
</tr>
<tr>
<td></td>
<td>2 MP</td>
<td>30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1</td>
</tr>
<tr>
<td></td>
<td>1 MP</td>
<td>30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1</td>
</tr>
</tbody>
</table>

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

- **Video Encoding**: H.265, H.264 Main/High, MJPEG
- **Bit Rate Control**: Constant bit rate (CBR), constrained variable bit rate (CVBR) with configurable maximum value
- **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
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 SMART COMPRESSION TECHNOLOGY

Pelco’s Smart Compression Technology lowers bandwidth and storage requirements by up to 70%. Our technology allows the user to 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, up to 70% bandwidth savings can be achieved.

AUDIO

<table>
<thead>
<tr>
<th>Streaming</th>
<th>Bi-directional full duplex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>Line Level, 3K ohm differential w/ 1Vp-p max signal</td>
</tr>
<tr>
<td>Output</td>
<td>Line Level, 600 ohm differential w/ 1Vp-p</td>
</tr>
<tr>
<td>Encoding</td>
<td>G.711 A-law/G.711 U-law</td>
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</tbody>
</table>
**TECHNICAL SPECIFICATIONS**

**ELECTRICAL**

<table>
<thead>
<tr>
<th>Model</th>
<th>Power Input</th>
<th>Power Consumption (Watts or VA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IWP13x</td>
<td>PoE</td>
<td>3.2 W</td>
</tr>
<tr>
<td>IWP23x</td>
<td>PoE</td>
<td>3.9 VA</td>
</tr>
<tr>
<td>IWP33x</td>
<td>PoE</td>
<td>6.2 W</td>
</tr>
</tbody>
</table>

Local Storage: Micro SDHC & SDXC 2 TB addressable, 128 GB or more testable

**ENVIRONMENTAL**

Operating Temperature: –20° to 55°C (–4° to 131°F)

Storage Temperature: –40° to 70°C (–40° to 158°F)

Operating Humidity: 5% to 95%, RH noncondensing

Storage Humidity: 20% to 80%, RH noncondensing

Ingress Protection: IP66/67 Type 4X

Vandal Resistance: IK10 (20 Joules)

Shock and Vibration: IEC 60068:2-6 and 2-27

**GENERAL**

Construction: Aluminum, polycarbonate bubble

Finish: RAL 9003

Pan/Tilt Adjustment: Manual

- Pan: ±90°
- Tilt: 0°~ –80°
- Rotate: 0°~ 355°

Unit Weight: 0.38 kg (0.84 lb)

Shipping Weight: 0.63 kg (1.40 lb)

**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 NTCP 1205, ARP, DDNS, IGMP, IGMP, RTCP, SFTP, SIP, TLS/SSL, WS-discovery

Users:

- Unicast: Up to 5 simultaneous users depending on resolution settings (3 guaranteed streams)
- Multicast: Unlimited users H.264/H.265

Security Access: Password Protected, HTTPS, IEEE 802.1X, Digest Authentication, IP Filtering

Software Interface: Web browser view and setup

**INTEGRATION**

Video Management: VideoXpert; VXToolbox;

Open API: Third-party VMS through Pelco API, ONVIF Profile S, Profile G, Profile Q, 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

SYSTEM MODEL NUMBERS*

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Lens</th>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 MP</td>
<td>2.8 mm</td>
<td>IWP133-1ERS</td>
<td>Sarix Pro IR Vandal Resistant Wedge Dome</td>
</tr>
<tr>
<td>2 MP</td>
<td>2.8 mm</td>
<td>IWP233-1ERS</td>
<td>Sarix Pro IR Vandal Resistant Wedge Dome</td>
</tr>
<tr>
<td>2 MP</td>
<td>2.4 mm</td>
<td>IWP232-1ERS</td>
<td>Sarix Pro IR Vandal Resistant Wedge Dome</td>
</tr>
<tr>
<td>2 MP</td>
<td>4 mm</td>
<td>IWP234-1ERS</td>
<td>Sarix Pro IR Vandal Resistant Wedge Dome</td>
</tr>
<tr>
<td>2 MP</td>
<td>6 mm</td>
<td>IWP236-1ERS</td>
<td>Sarix Pro IR Vandal Resistant Wedge Dome</td>
</tr>
<tr>
<td>3 MP</td>
<td>2.8 mm</td>
<td>IWP333-1ERS</td>
<td>Sarix Pro IR Vandal Resistant Wedge Dome</td>
</tr>
<tr>
<td>5 MP</td>
<td>2.8 mm</td>
<td>IWP533-1ERS</td>
<td>Sarix Pro IR Vandal Resistant Wedge Dome</td>
</tr>
<tr>
<td>5 MP</td>
<td>2.4 mm</td>
<td>IWP532-1ERS</td>
<td>Sarix Pro IR Vandal Resistant Wedge Dome</td>
</tr>
</tbody>
</table>

*System options contain a back box/mount, camera, and clear dome.

CERTIFICATIONS*

- CE - EN 55032 (Class A), EN 50130-4, EN 60950-1
- FCC (Class A) - 47 CFR Part 15
- UL and cUL Listed - UL 60950-1, CAN/CSA-C22.2 No. 60950-1-07
- IEC/EN 60950-22
- IEC 62301 (Class A)
- RCM
- KCC
- NOM
- EAC
- BIS
- ONVIF Profile S, Profile G, Profile Q, and Profile T conformant
- Type 4x when installed properly
- IP66/IP67 when installed properly

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

RECOMMENDED MOUNTS

- IMP3PMB-1I Indoor dome wall bracket for indoor models
- IBP3-PLMT Pole mount

OPTIONAL ACCESSORIES

- IMP3EBAP 4S electrical box adapter
- IWPWPC RJ45 waterproof connector kit

VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS

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