

# Sarix® IBP Series Environmental Bullets

## UP TO 5 MP, H.265, H.264, WDR, D/N IP BULLETS WITH INTEGRATED IR

### Product Features

- H.265, H.264 Main, High, MJPEG video encoding
- Up to 5 MP resolution at 30 images per second
- Up to 60 images per second (ips) at 4 MP for 5MP cameras
- Autofocus motorized remote zoom lens
- IR illumination up to 50/60/80 meters (for different lenses)
- Operating temperature up to 60°C (140°F)
- Micro SDHC and SDXC card 2 TB addressable, 128 GB testable
- Pelco Pro Analytics Suite including Adaptive Motion, Object Counting, Motion Detection, Camera Sabotage
- 24 VAC, 12 VDC, IEEE802.at (PoE+)
- Pelco Smart Compression Technology
- Vandal resistant to IK10, IP66/67 ingress protection
- Compatible with Pelco & third-party video management systems
- ONVIF Profile S, Profile G, Profile Q, and Profile T conformant
- Full 3-year warranty



### 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 and box. Mix and match the performance options and form factor you need for almost any lighting condition, environment, and application.

### IBP Series Bullet Camera

Within the **Sarix Professional** range, the **Sarix IBP Series** outdoor bullet cameras provide options of three kinds of a remote zoom lens for wide angle or long range surveillance needs. Autofocus capability ensures the camera can be automatically refocused when needed. Additionally, the **Sarix IBP Series** features advanced color science, true WDR, and advanced integrated adaptive IR illumination for visibility in different lighting conditions. IK10, IP66/67, and Type 4X compliance ensure enough robustness for challenging environments.

### Video

**Sarix Professional** provide options of three kinds of 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™, 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, 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.

# TECHNICAL SPECIFICATIONS

## 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  |
| 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<br>(Auto Tracing White Balance), Auto, and Manual |
| 3D Noise Reduction       | Yes (ON/OFF selectable)   |
| Signal to Noise Ratio    | ≥50 dB  |

| MP   | Lens        | Sensitivity | Color      |             | Mono      |             | Mono (IR On) |
|------|-------------|-------------|------------|-------------|-----------|-------------|--------------|
|      |             |             | 33 ms      | 200 ms      | 33 ms     | 200 ms      |              |
| 1 MP | 2.8 - 12 mm | f/1.4       | 0.0169 lux | 0.00416 lux | 0.01 lux  | 0.0025 lux  | 0.0 lux      |
| 2 MP | 2.8 - 12 mm | f/1.4       | 0.0169 lux | 0.00416 lux | 0.01 lux  | 0.0025 lux  | 0.0 lux      |
| 2 MP | 9 - 22 mm   | f/1.5       | 0.0195 lux | 0.00481 lux | 0.011 lux | 0.00275 lux | 0.0 lux      |
| 2 MP | 5 - 50 mm   | f/1.6       | 0.0234 lux | 0.00585 lux | 0.013 lux | 0.0032 lux  | 0.0 lux      |
| 3 MP | 2.8 - 12 mm | f/1.4       | 0.065 lux  | 0.01625 lux | 0.03 lux  | 0.0075 lux  | 0.0 lux      |
| 3 MP | 5 - 50 mm   | f/1.6       | 0.104 lux  | 0.026 lux   | 0.05 lux  | 0.0125 lux  | 0.0 lux      |
| 5 MP | 2.8 - 12 mm | f/1.4       | 0.26 lux   | 0.065 lux   | 0.15 lux  | 0.0375 lux  | 0.0 lux      |
| 5 MP | 7 - 22 mm   | f/1.6       | 0.3 lux    | 0.078 lux   | 0.15 lux  | 0.0375 lux  | 0.0 lux      |

Day/Night Capabilities Mechanical IR Cut Filter (ON/OFF/AUTO), with different set points on lux

IR Illumination 850 nm Adaptive IR up to:  
50 m (IBP131-1ER, IBP231-1ER, IBP331-1ER, IBP531-1ER),  
60 m (IBP232-1ER, IBP532-1ER),  
80 m (IBP235-1ER, IBP335-1ER);  
Auto ON in night mode, or OFF

## LENS

|                |  |
|----------------|--|
| Lens type      | Built-in; varifocal  |
| Focal Length   | f/1.4 (2.8 ~ 12 mm), f/1.5 (9 ~ 22 mm), or f/1.6 (5 ~ 50 mm and 7 ~ 22 mm) |
| Focus          | Autofocus, motorized   |
| Zoom           | Remote   |
| Auto Iris Type | DC-Iris  |

| Field of View* | Angle of View | IBP131 Series | IBP231 Series | IBP331 Series | IBP531 Series | IBP232 Series | IBP235 Series | IBP335 Series | IBP532 Series |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Lens</b>    |               | 2.8 ~ 12 mm   | 2.8 ~ 12 mm   | 2.8 ~ 12 mm   | 2.8 ~ 12 mm   | 9 ~ 22 mm     | 5 ~ 50 mm     | 5 ~ 50 mm     | 7 ~ 22 mm     |
|                | Diagonal      | 94°~ 32°      | 121°~ 39°     | 120°~ 38°     | 120°~ 39°     | 40°~ 18°      | 68°~ 9°       | 68°~ 9°       | 51°~ 21°      |
|                | Horizontal    | 72°~ 25°      | 101°~ 34°     | 90°~ 31°      | 90°~ 31°      | 35°~ 15°      | 60°~ 7°       | 57°~ 7°       | 40°~ 17°      |
|                | Vertical      | 53°~ 19°      | 53°~ 19°      | 66°~ 24°      | 66°~ 24°      | 20°~ 8°       | 36°~ 4°       | 44°~ 5°       | 30°~ 13°      |

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

# TECHNICAL SPECIFICATIONS

## VIDEO

Video Streams

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

Text 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.

Video Encoding

H.265, H.264 High and Main profiles; and 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°, and 270°

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 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 the extent of motion, up to 70% bandwidth savings can be achieved.

## AUDIO

Streaming

Bi-directional full duplex

Input

Line level, 3 K ohm differential w/1Vp-p maximum signal

Output

Line level, 600 ohm differential w/1Vp-p

Encoding

G.711 A-law/G.711 U-law

# TECHNICAL SPECIFICATIONS

## GENERAL

|                     |                                |
|---------------------|--------------------------------|
| Construction        | Aluminum, polycarbonate window |
| Finish              | RAL 9003                       |
| Pan/Tilt Adjustment | Manual                         |
| Pan                 | 0° ~ 355°                      |
| Tilt                | 0° ~ 90°                       |
| Rotate              | 0° ~ 355°                      |

## ELECTRICAL

|                           |  |
|---------------------------|--|
| Network Port              | RJ-45 connector for 10/100Base-TX  |
| Power Input               | IEEE802.3at PoE+, 18 ~ 32 VAC,<br>12 VDC +/-10%  |
| Maximum Power Consumption |  |
| 12 VDC                    | 29.3 W   |
| 24 VAC                    | 36.7 W   |
| PoE+                      | 23 W   |
| Local Storage             | Micro SDHC or SDXC card 2 TB addressable,<br>128 GB testable                             |
| Alarm                     |  |
| Input                     | 1; PhotoMOS™ relay (30 V, 1 A)   |
| Output                    | 1; PhotoMOS™ relay (30 V, 1 A)   |
| Triggers                  | Unsupervised mode that detects switch<br>closures (Normally Open and Normally<br>Closed) |

## ENVIRONMENTAL

|                       |                              |
|-----------------------|------------------------------|
| Operating Temperature | -40° to 60°C (-40° to 140°F) |
| Storage Temperature   | -40° to 70°C (-40° to 158°F) |
| Operating Humidity    | 5% to 95%, RH condensing     |
| Storage Humidity      | 20% to 80%, RH noncondensing |
| Ingress Protection    | IP66/67, Type 4X             |
| Shock and Vibration   |                              |
| Resistance            | IEC 60068:2-6 and 2-27       |
| Impact Resistance     | IK10 (20 Joules)             |

## NETWORK

|                     |   |
|---------------------|---|
| Supported Protocols | TCP/IP, UDP/IP (Unicast, Multicast IGMP),<br>UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6,<br>SNMP v2c/v3, QoS, HTTP, HTTPS, SSH, SSL,<br>SMTP, FTP, 802.1x (EAP), and NTCIP 1205,<br>ARP, DDNS, ICMP, IGMP, RTCP, SFTP, SIP, TLS/<br>TTLS, WS-discovery |
| Users               |   |
| Unicast             | Up to 5 simultaneous users depending on<br>resolution settings (3 guaranteed streams)   |
| Multicast           | Unlimited users H.264/H.265   |
| Security Access     | Password protected, HTTPS, IEEE 802.X,<br>Digest Authentication, IP Filtering   |
| Software Interface  | Web browser view and setup  |

## INTEGRATION

|                             |   |
|-----------------------------|---|
| Video Management            | VideoXpert; VXToolbox;<br>Endura version 2.0 (or later);<br>Digital Sentry 7.3 (or later);  |
| Open API                    | Third-party VMS through Pelco API 1.0 and<br>ONVIF Profile S, Profile G, Profile Q, and<br>Profile T  |
| Mobile Application          | Pelco Mobile  |
| Local Storage               | Capture 1-, 5-, or 10-second video clips on<br>camera sabotage, motion detection, or alarm<br>input; record video continuously in the case of<br>network outage with option to overwrite;<br>access video through FTP protocol and ONVIF<br>Profile G |
| Camera Discovery            | VX Toolbox  |
| Firmware Upgrade            | Web UI or VX Toolbox  |
| Web Browser Support         | Microsoft® Internet Explorer® 8.0, Mozilla®<br>Firefox® 3.5, Google® Chrome™ 61.0 and later   |
| Multilingual User Interface | English, French, German, Italian, Portuguese,<br>Arabic, Russian, Spanish, Turkish, Korean,<br>Simplified Chinese   |

## 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
- UL/IEC/EN 60950-22
- ICES-003 (Class A)
- RCM
- KCC
- NOM
- EAC
- BIS
- Type 4X and IP66/67 rated enclosure when installed properly
- IEC 60068:2-6 and 2-27
- ONVIF Profile S, Profile G, Profile Q, and Profile T conformant

\*At the time of this publication, certifications are pending. Consult the factory or [www.pelco.com](http://www.pelco.com) for the current status of certifications.

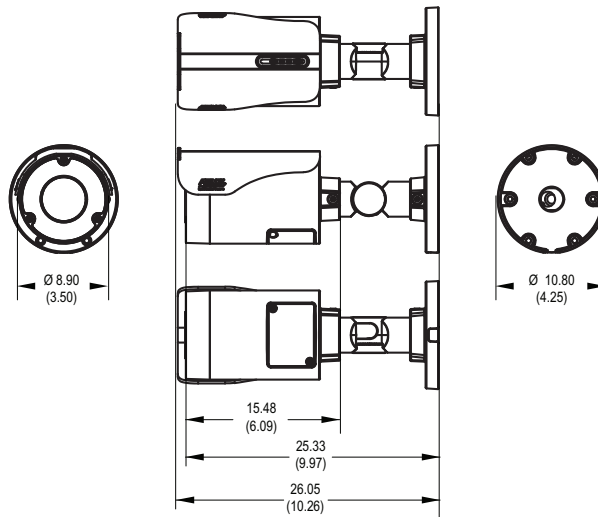
# TECHNICAL SPECIFICATIONS

## MODELS

| Resolution | Lens         | Model Number | Description                                |
|------------|--------------|--------------|--|
| 1 MP       | 2.8 to 12 mm | IBP131-1ER   | Sarix Pro Environmental Short-Tele Bullet  |
| 2 MP       | 2.8 to 12 mm | IBP231-1ER   | Sarix Pro Environmental Short-Tele Bullet  |
| 2 MP       | 9 to 22 mm   | IBP232-1ER   | Sarix Pro Environmental Middle-Tele Bullet |
| 2 MP       | 5 to 50 mm   | IBP235-1ER   | Sarix Pro Environmental Long-Tele Bullet   |
| 3 MP       | 2.8 to 12 mm | IBP331-1ER   | Sarix Pro Environmental Short-Tele Bullet  |
| 3 MP       | 5 to 50 mm   | IBP335-1ER   | Sarix Pro Environmental Long-Tele Bullet   |
| 5 MP       | 2.8 to 12 mm | IBP531-1ER   | Sarix Pro Environment Short-Tele Bullet    |
| 5 MP       | 7 to 22 mm   | IBP532-1ER   | Sarix Pro Environmental Middle-Tele Bullet |

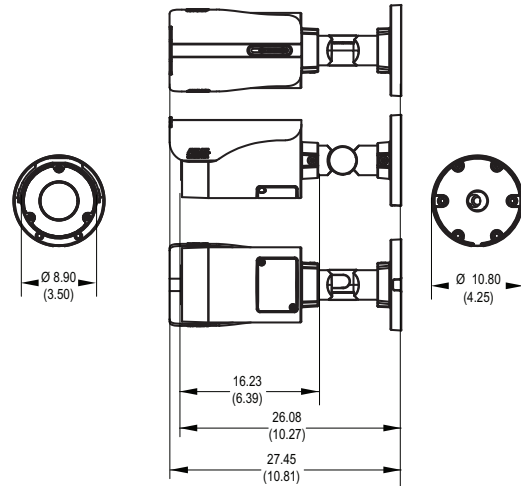
 VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS

**SARIX PRO ENVIRONMENTAL BULLET SHORT LENS**  
(IBP131-1ER, IBP231-1ER, IBP232-1ER, IBP331-1ER, IBP531-1ER, IBP532-1ER)



RAL 9003

**SARIX PRO ENVIRONMENTAL BULLET LONG LENS**  
(IBP235-1ER, IBP335-1ER)



RAL 9003

# TECHNICAL SPECIFICATIONS

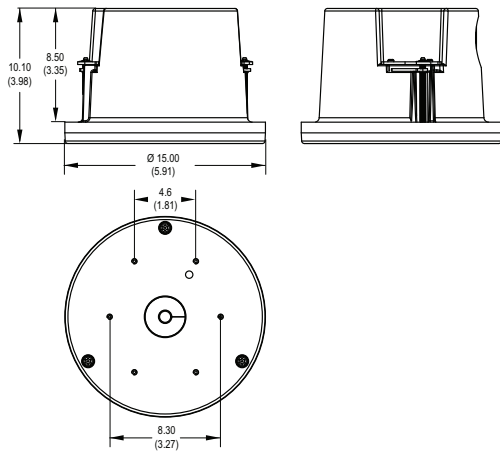
## OPTIONAL ACCESSORIES

|                         |  |
|-------------------------|--|
| IBP3-PLMT and IBP3-PLMT |  |
| with IBP3BBAP-ES        | Pole mount   |
| IBP3BBAP-ES             | Environmental surface mount back box and adapter plate |
| IBP3BBAP-EI             | In-ceiling mount                                       |



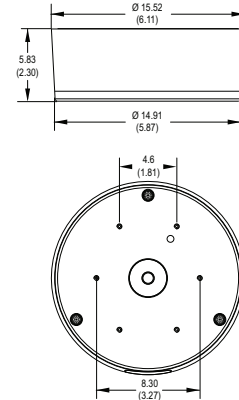
VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS

### IBP3BBAP-EI ENVIRONMENTAL IN-CEILING MOUNT BACK BOX AND ADAPTER PLATE



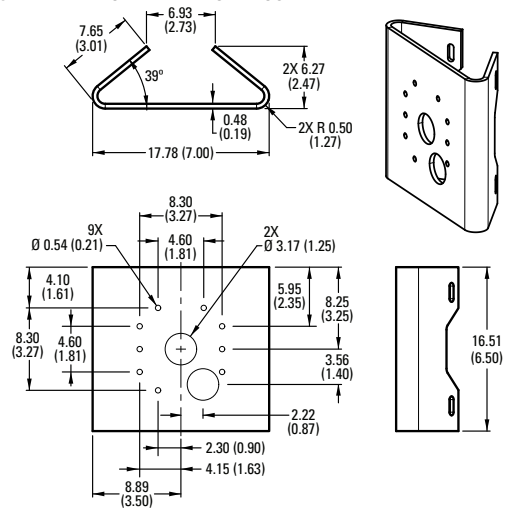
RAL 9003

### IBP3BBAP-ES ENVIRONMENTAL SURFACE MOUNT BACK BOX AND ADAPTER PLATE



RAL 9003

### IBP3-PLMT ENVIRONMENTAL POLE MOUNT



RAL 9003

▲ **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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