Esprit® Enhanced Series IP Positioning System
SUREVISION 3.0 CAMERAS IN STANDARD AND PRESSURIZED MODELS

Product Features

- Surevision 3.0 Technology, Including:
  - 130dB Wide Dynamic Range (WDR)
  - Advanced Low Light Down to 0.03 LUX, Anti-Bloom Technology, 3D Noise Filtering, Enhanced Tone Mapping
- Up to Full HD 1080p and up to 60 Images per Second
- Full Suite of Built-In Analytics Including AutoTracker, Adaptive Motion Detection, Abandoned Object, and More.
- Defog Mode Provides Three Levels of Fog Removal Within the Image for Improved Image Quality During Bad Weather Conditions
- Vivid Mode Can be Turned On/Off to Drastically Improve the Image Contrast and Color Saturation
- Electronic Image Stabilization (EIS)
- Pan/Tilt and Enclosure with Integrated Optics Package (IOP) or Pressurized Integrated Optics Cartridge (IOC)
- Dual Stream H.264 IP Video with Smart Compression
- Vari-Zoom IR Illuminator Option with 200 Meter Range
- 16 Preset Tours, 256 Presets, 32 Window Blanks, 8 Patterns, 8 Scans

VideoXpert™

Full HD 1080p SureVision 3.0

- Integrated Window Wiper with Configurable Delay and Shut-Off (ES6230-1x Models)
- ONVIF Profile S, Profile G, and Profile Q Conformant
- 360° Continuous Pan Rotation at 140° per Second
- SFP Port

Top of the Line IP Performance

Pelco's iconic Esprit® Series positioning system provides best-in-class image quality and pan/tilt performance. Esprit Enhanced provides the total package of impressive image quality, valuable software features, and time-tested pan/tilt performance suitable for any installation environment.

Full High Definition SureVision 3.0 Cameras

Esprit Enhanced has long provided a Full HD 1080p 30x optical zoom camera but with Pelco's latest product evolution a powerful new SureVision 3.0 enabled camera is now available featuring 130dB of True Wide Dynamic Range and low light performance up to twenty times better than past Esprit models. The new SureVision 3.0 camera is available in either a standard or pressurized 30x optical zoom module that delivers market leading image quality for even the toughest outdoor environments. Paired with Pelco's illuminator modification, the camera ensures that image quality is top-of-the-line, even on the darkest of nights.

Image Enhancement Features

Esprit Enhanced has historically packed in many features that enhance the total value of the system, and with the new SureVision 3.0 cameras, even more value has been added. Since its inception, Esprit Enhanced has had a full suite of built in video analytics, 32 window blanking privacy zones, and electronic image stabilization.

Standard IP Ethernet Connection and Integrated Transmission

Options via a small form-factor pluggable transceiver (SFP port). This may include Fiber, Ethernet over Coax, and UTP Extension. In addition to the vastly improved low light and wide dynamic range performance, the new SureVision 3.0 cameras now provide Image Defog, five new White Balance modes, and the popular Vivid Imaging Mode. Three levels of Image Defog are now available helping enhance images on foggy or rainy days. New White Balance modes allow the user to overcome difficult lighting conditions caused by external sources such as Sodium Vapor lamps and the Vivid Imaging mode provides an option for automatically increased color saturation and sharpening when enabled.

Proven Performance and Reliability

Esprit Enhanced brings together the very best in enclosure design, PTZ mechanics, and receiver technologies to produce the industry's leading high-speed camera system. Installed around the world for more than 16 years, Esprit Enhanced has been constantly updated to provide the latest pan/tilt and imaging performance. The camera is easy to install, easy to use, and highly reliable.

VMS Integration

Esprit Enhanced easily connects to Pelco IP and hybrid video systems such as VideoXpert, Endura 2.0 (or later), and Digital Sentry 7.3 (or later). The camera is also compatible with Digital Sentry NVS (DS NVS), a full-featured video management software, which is available as a free download at www.pelco.com. DS NVS includes four free Pelco IP licenses and allows for the management of video from up to 64 cameras.

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International Standards
Organization Registered Firm,
ISO 9001 Quality System

ISO 9001 CERTIFIED

ESPRIT ENHANCED POSITIONING SYSTEM

Pelco's Esprit® Enhanced Positioning System features a pan/tilt, enclosure, and either an Integrated Optics Package (IOP) or a pressurized Integrated Optics Cartridge (IOC) in a single, easy-to-install system. Options include IOP with or without wiper and IOC models with wiper.

A powder-coated, aluminum construction makes the Esprit Enhanced Series ideal for either indoor or outdoor applications. The system has an absolute operating temperature range of –45° to 60°C (–50° to 140°F). Within two hours after power-up, the entire unit can de-ice and be operational from a temperature of –25°C (–13°F).

The Esprit Enhanced Series variable pan and tilt speeds range from 0.1 to 80 degrees per second in manual pan mode, and 0.1 to 40 degrees per second in manual tilt. Pan preset and turbo speeds are 140 degrees per second. Tilt preset speed is 140 degrees per second.

The Esprit Enhanced Series system's IOC contains dry nitrogen pressurized to 10 psig, which protects the environment inside the cartridge eliminating internal condensation and corrosion. Sensors are strategically placed in the cartridge to monitor pressure, which is then displayed on the Web UI. The IOC is factory assembled and installed in Esprit Enhanced Series systems. All labor intensive procedures of setting up the camera, lens and charging the unit with dry nitrogen are eliminated. The miniature size of the cartridge decreases the future need for maintenance and increases the overall reliability of the pressurized unit.

Esprit Enhanced is available with a window wiper. The wiper is completely integrated into the enclosure and does not interfere with the viewing range of the system. The wiper can be configured to delay between wipes and to automatically shut off after a specified period. The wiper design also allows for easy replacement of the wiper blade. A built-in heater, window defroster/defogger, and sun shroud are standard features on Esprit Enhanced units, which also includes an open collector auxiliary output to control external devices.

The systems are available with a universal mains power supply. The Esprit Enhanced Series also has a power-up recovery mode that allows the user to specify what operation the system will resume whenever the power is cycled.

Electronic Image Stabilization (EIS)

Electronic image stabilization (EIS) is a feature of the camera that can help compensate for some frequencies of vibration. In all cases, care should be taken to ensure that any positioning system is mounted to a rigid location.

The default for EIS is OFF. The user can turn EIS ON if vibration is affecting image quality. Although EIS can reduce the impact of vibration on image quality, it cannot correct for all levels of vibration. Other measures should be taken to isolate the camera from the source of the vibration or to seek a more rigid mounting location.

PELCO ANALYTICS BEHAVIORS

The Esprit Enhanced Series includes nine user-configurable behaviors. The camera is capable of running up to three behaviors simultaneously; although, the number of behaviors is limited to the available processing power of the camera and the type of analytic being used.

- **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.
- **Adaptive Motion 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.
- **AutoTracker:** Detects and tracks movement in the field of view. When the AutoTracker behavior is configured, the system automatically pans and tilts to follow the moving object until the object stops or disappears from the monitored area.
- **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.
- **Directional Motion:** 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 enter a defined zone. 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 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 idea for airport curbside drop-offs, parking enforcement, suspicious parking, traffic lane breakdowns, and vehicles waiting at gates.

CAMERA/OPTICS

Specification		ES6230
Sensor Type		1/2.8-inch Type Exmor CMOS Sensor
Optical Zoom		30X
Digital Zoom		12X
Maximum Resolution		1920 x 1080
Lens		f/1.6 ~ f/4.7, focal length 4.3 mm (wide) ~ 129.0 mm (tele)
Horizontal Angle of View		63.7°(wide) - 2.3° (tele)
Aspect Ratio		16:9
Light Sensitivity	Color (33 ms)	0.03 lux
	Color (250 ms)	0.008 lux
	Mono (33 ms)	0.004 lux
	Mono (250 ms)	0.001 lux

Note: Sensitivity in lux for 90% reflectance, f/1.6 (wide angle), 50 dB gain at 30 IRE (30% of signal level) with Sensitivity Boost OFF; 4X improvement to sensitivity with Sensitivity Boost ON

Day/Night Capabilities	Yes
Shutter Range	1/1 ~ 1/10,000 sec
Signal-to-Noise Ratio	>50dB
IR Cut Filter	Yes
Wide Dynamic Range	130 dB
Iris Control	Auto iris with manual override
Backlight Compensation	Yes
Automatic Gain Control	Yes
Active Noise Filtering	3D Noise Filtering
Electronic Image Stabilization (EIS)	Yes
IR Wavelength	850nm

SOFTWARE FEATURES

- 256 presets
- 16 tours
- ±0.1° preset accuracy
- Frame Scan (8 configurable scans)
- Patterns (8 recordable patterns, 5 minutes each)
- Multilingual Menus (English, Spanish, Portuguese, Italian, German, French, Russian, Turkish, Arabic, Chinese, and Korean)
- Password protection
- 32 Window Blanks, configurable in size, with 5 window blur options
- Configurable park with actions
- Proportional pan/tilt continually decreases pan/tilt speeds in proportion to depth of zoom
- Pelco analytics including nine user-configurable behaviors
- Image Defog modes

VIDEO

Video Encoding	H.264 High, Main, or Base profiles and MJPEG
Video Streams	Up to 2 simultaneous streams; the second stream is variable based on the setup of the primary stream
Frame Rate	Up to 60, 50, 30, 25, 15, 12.5, 10, 8.333, 7.5, 6, 5, 3, 2.5, 2, 1 (depending on the coding, resolution, and stream configuration)
Available Resolutions	

Resolution				H.264 High Profile (IP GOP structure)	
MPx	Width	Height	Aspect Ratio	Maximum IPS	Recommended Bit Rate (Mbps)
2.07	1920	1080	16:9	60	8.00
2.07	1920	1080	16:9	30	6.05
0.92	1280	720	16:9	30	3.00
0.36	800	448	16:9	30	2.00
0.23	640	352	16:9	30	1.80
1.23	1280	960	4:3	30	3.80
0.49	800	608	4:3	30	2.00
0.31	640	480	4:3	30	1.45
0.08	320	240	4:3	30	0.50

NETWORK

Interface	Ethernet (100Base-TX) Auto MDI/MDI-X Auto-Negotiate
Ethernet Cabling Type	Cat5e or better
SFP Interface	Supports SFP Transceivers
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, and 802.1x (EAP), NTCIP 1205
Users	
Unicast	Up to 20 simultaneous users depending on resolution settings (2 guaranteed streams)
Multicast	Unlimited users H.264
Security Access	Password protected, 802.1x, HTTPS
Software Interface	Web browser view and setup
Pelco System Integration	VideoXpert Enterprise and VideoXpert 2.0 or later
	Endura 2.0 (or later) Digital Sentry 7.3 (or later)
Open API	Pelco API or ONVIF Profile S, Profile G, and Profile Q
Mobile Application	Integrated to Pelco Mobile App
Video Motion Detection	Simple motion detection and camera sabotage
Local Storage	Capture 1–5–10 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
SDXC Card	Addressable up to 2TB

TECHNICAL SPECIFICATIONS

MINIMUM SYSTEM REQUIREMENTS

Processor	Intel® Core™ i3 Processor, 2.4 GHz
Operating System	Windows® 7 (32-bit and 64-bit) with 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 Card	100 megabits (or greater)
Monitor	Minimum of 1024 x 768 resolution, 16- or 32-bit pixel color resolution
Web Browser	Internet Explorer 10.0 (or later) or Firefox 3.5 (or later); Internet Explorer 8.0 (or later) is recommended for configuring analytics

*Supports mixed IPv4 and IPv6 installations, but not IPv6-only deployments.

ANALYTICS

Required Systems for Pelco Analytics

Pelco Interface	VideoXpert Enterprise and VideoXpert Pro 2.0 or later 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*. ONVIF Analytic Service Support for Analytic Events.

GENERAL

Construction	Die-cast, extruded and sheet aluminum; stainless steel hardware
Finish	Gray polyester powder coat
Operating Temperature	−45° to 60°C (−50° to 140°F) ambient for sustained system operation or 74°C (165.2°F) absolute maximum ambient per NEMA TS-2; within two hours after power-up, the entire unit can de-ice and be operational from a temperature of −25°C (−13°F). Cold start from −40°C.
Wind	
Full Motion Control	0 to 65 knots (75 mph/120 kph)
Limited Speed Control	65 to 78 knots (90 mph/145 kph)
Survive*	78 to 130 knots (150 mph/240 kph)
*Without sun shield	
Storage Temperature	−20° to 60°C (−4° to 140°F)
Operating Humidity	
Unit	Standard with IOP: 10 to 90% relative humidity (noncondensing) Standard with IOC: 10 to 100% relative humidity (condensing)

Weight

Unit Weight	Without IR	With IR
Standard with IOP	12.83 kg (28 lb)	N/A
With Wiper and IOP	13.06 kg (29 lb)	15.86 kg (35 lb)
With Wiper and IOC	13.56 kg (30 lb)	16.36 kg (36 lb)
Shipping Weight	Without IR	With IR
Standard with IOP	16.7 kg (37 lb)	N/A
With Wiper and IOP	16.94 kg (37 lb)	21.93 kg (48 lb)
With Wiper and IOC	17.44 kg (38 lb)	22.43 kg (49 lb)

	Without IR	With IR
Effective Projected Area	193 inch^2	243 inch^2

PRESSURIZED INTEGRATED OPTICS CARTRIDGE (IOC)

- Pressurized to 10 psig, Nominal (Sea Level, 21°C [70°F])
- Internal Sensor for Pressure Reading
- Designed to IP66 Standards
- U.S. Patent D472,260

MECHANICAL

Variable Speed	0.1° to 140°
Preset Accuracy	±0.1°
Pan Movement	360° continuous pan rotation
Vertical Tilt	Unobstructed +40° to −90°
Manual Pan/Tilt Speeds	
Pan	0.1° to 80°/sec
Tilt	0.1° to 40°/sec
Preset Speeds	140°/sec

ELECTRICAL

Input Voltage	HPoE, 24 VAC, 48 VDC Mains 100 to 240 VAC
Input Voltage Range	±10%
Max Power Consumption	

	With Heaters	IR Models With Heaters
24 VAC	60 VA	—
HPoE	65 VA (HPoE 802.3bt Class 8 compliant)	—
48 VDC	60 VA	95 VA
Mains	60 VA	95 VA

Heater and Defroster	Thermostatically controlled
Electrical Connections	
24 VAC, 48 VDC, 100 to 240 VAC	Screw terminals for power
Alarms	Four; Detects open or closed alarm state
Input	3.5 VDC maximum, 3.5 mA maximum
Unsupervised	Detects open or closed alarm state
Supervised	Detects open and short alarm state with external 1k-ohm resistor
Relay Outputs	Two; 30 VDC maximum, 1A maximum

AUDIO

Input/Output	Line level/external microphone input; 600-ohm differential, 1Vp-p maximum signal level
Streaming	Embedded audio

CERTIFICATIONS/RATINGS

- CE, Class A
- FCC, Class A
- KCC
- UL/cUL Listed
- C-Tick
- NEMA TS-2 (Temp.) para 2.2.7.3 - 2.2.7.7
- Meets NEMA Type 4X and IP66 Standards
- ONVIF Profile S
- ONVIF Profile G
- ONVIF Profile Q
- Cisco® Medianet Media Services Proxy 2.0 compatible

OPTIONAL ACCESSORIES

ES-BLADE-2	Package of 2 window wiper replacement blades
ES-BLADE-10	Package of 10 window wiper replacement blades

🖐 *VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.*

ESPRIT ENHANCED WITH ADAPTIVE IR
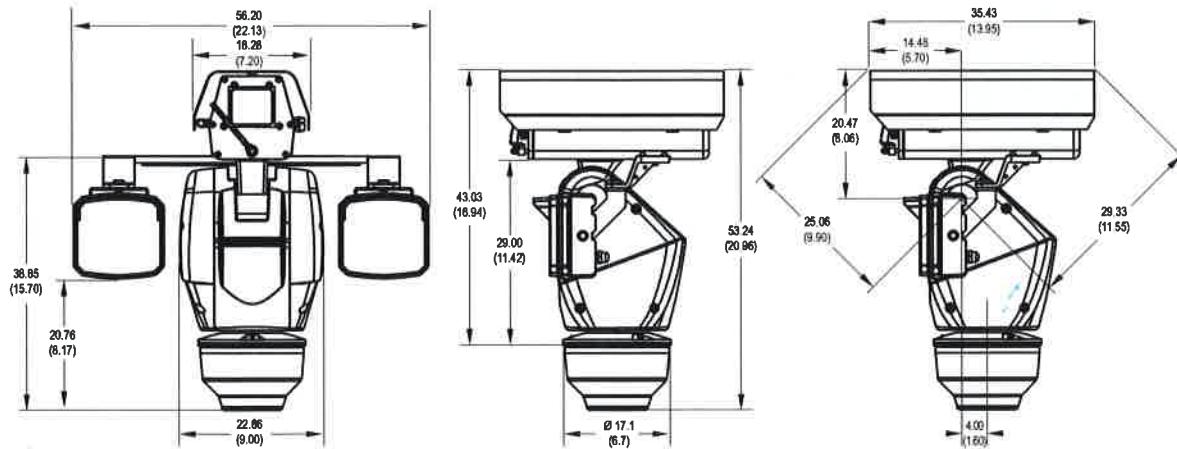
ESPRIT ENHANCED
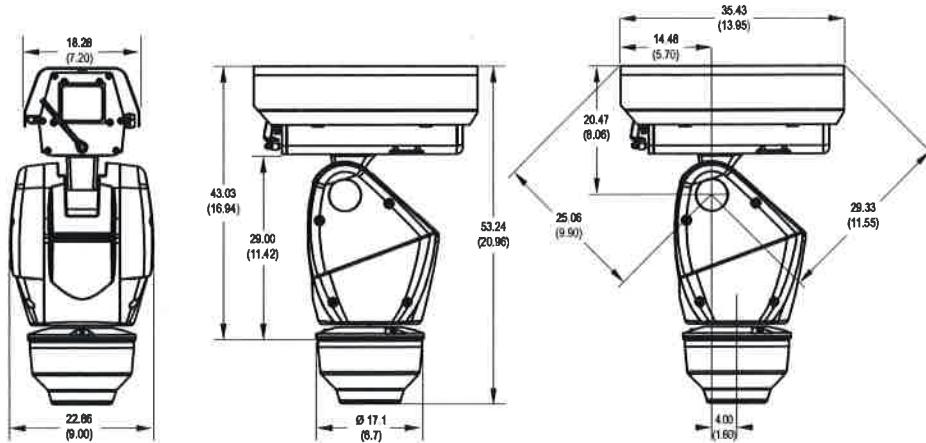
MODEL NUMBERS

MODELS

Enclosure Type	Non IR		200m IR	
	HPoE, 24 VAC, 48 VDC	100 to 240 VAC	48 VDC	100 to 240 VAC
Standard	ES6230-02	ES6230-05	—	—
With Wiper	ES6230-12	ES6230-15	ES6230-12-R2	ES6230-15-R2
Pressurized and Wiper	ES6230-12P	ES6230-15P	ES6230-12P-R2	ES6230-15P-R2

OPTIONAL MOUNTS AND ADAPTERS

EPP2	Esprit pedestal adapter; for use with PM20/PM2010 pedestal mount
EWM	Esprit wall mount
EPM	Pole mount adapter for use with EWM wall mount
ECM100	Corner mount adapter for use with EWM wall mount
PM2000/PM2010	Pedestal mount with cable feedthrough. For use with Esprit systems with EPP pedestal adapter plate.

RECOMMENDED POWER SUPPLIES

MCS Series	Multiple 24 VAC camera power supply, indoor
WCS Series	Single/multiple 24 VAC camera power supply, outdoor
ECPS-48VDC-SA	48 VDC indoor power supply
POE9OU1BT-EUK	90 W HPOE 802.3BT single port injector EU and UK power cord included
POE9OU1BT-US	90 W HPOE 802.3BT single port injector US power cord included
POE9OU1BT	90 W HPOE 802.3BT single port injector power cord not included

Spectra® Professional Series IP Dome System
P1220 MODELS, HIGH DEFINITION PAN/TILT/ZOOM HIGH-SPEED DOME

Product Features

- Up to 1920 x 1080 Resolution
- 16:9 Aspect Ratio; 1080p at 30 Images per Second (ips)
- 2.0 Megapixel (MPx), 20X Optical Zoom, 12X Digital Zoom IP Camera
- Ability to Control and Monitor Video Over IPv4 Network
- Built-in Analytics Including Motion Detection and Camera Sabotage
- 2 Video Streams: Dual H.264 or H.264 and Scalable MJPEG
- 360° Continuous Pan Rotation up to 430° per Second
- Supported Protocols: TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, and More
- PoE+ IEEE 802.3at Class 4 (For Non-Environmental Units)
- 4 Preset Tours, 64 Dome Presets, 8 Window Blanks
- Open IP Standards
- ONVIF Profile S Conformant

Value-based Network Dome System

Pelco breaks the performance verses affordability barrier with the very powerful, cost-effective Spectra Professional Series of discreet, integrated camera dome positioning systems. The Spectra Professional Series delivers clear, live streaming, high-definition images over the Internet using a standard Web browser (Microsoft® Internet Explorer® Chrome or Mozilla® Firefox®). With six times the resolution of standard definition domes, Spectra Professional is an ideal solution to view details such as faces, license plates, tattoos, or other specific features when in a zoomed-in position.

Spectra Professional supports High-Profile H.264 compression, a vast improvement in quality over MPEG-4 and 20 times more efficient than MJPEG. The dome system features open architecture connectivity for third-party software recording solutions allowing integration into virtually any IP-based HD system. It is also compatible with Digital Sentry® video management systems. As with all Pelco IP camera solutions, Spectra Professional is Endura Enabled™ to record, manage, configure, and view multiple live streams. When connected to an Endura® HD network-based video security system, the dome system has access to EnduraStor™ and EnduraView™ for optimized image quality and bandwidth efficiency.

Spectra Professional Series features ease of installation and ease of maintenance that you have come to expect from Pelco. Each dome system consists of a back box, a dome drive, and a lower dome, all prepackaged as a system.

Spectra Professional Series includes a choice of four back box models: in-ceiling, environmental in-ceiling, pendant, and environmental pendant. All environmental models meet Type 4X, IP66 when properly installed.

Built-In Analytics

Pelco video Analytics enhance the flexibility and performance of Spectra Professional. Two preloaded Pelco behaviors are included as standard features and can be configured and enabled using a standard Web browser. They are compatible with Endura or a third-party system that supports alarms using Pelco's API.

- **Motion 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.

Web Interface

Spectra Professional uses a standard Web browser for powerful remote setup and administration.

Window Blanking

Window blanking is used to conceal user-defined privacy areas that cannot be viewed by an operator. Spectra Professional Series supports up to 8 blanked windows. A blanked area will appear on the screen as a solid gray window.

Video Systemization

Spectra Professional Series easily connects to Pelco IP and hybrid systems.

Spectra Professional Series features open architecture connectivity to third-party software. Pelco offers an application programming interface (API) and software developer's kit (SDK) for interfacing with Pelco's IP cameras.


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BACK BOX FEATURES

🖐 NOTE: VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.

Ø19.5 (7.68)
25.08 (10.16)
14.01 (5.51)
R7.76 (3.05)
Ø22.2 (8.74)
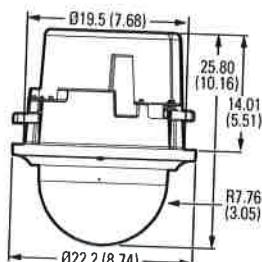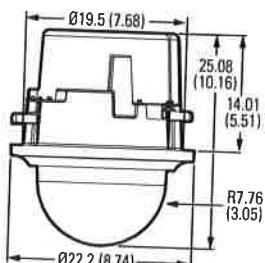
Indoor In-Ceiling
- Single Back Box for Suspended or Hard Ceiling Applications
- Requires 14.01 cm (5.51 in.) Space Above Ceiling
- Minimum Ceiling Thickness 1.27 cm (0.50 in.); Maximum 3.81 cm (1.5 in.)
- Aluminum, Stainless Steel, and PC-ABS Construction
- Suitable for Use in Environmental Air Handling (Plenum) Spaces
- White Finish, RAL 9003
- Available with Clear or Smoked Dome

Ø19.5 (7.68)
25.80 (10.16)
14.01 (5.51)
R7.76 (3.05)
Ø22.2 (8.74)

Environmental In-Ceiling
- Single Back Box for Suspended or Hard Ceiling Applications
- Requires 14.01 cm (5.51 in.) Space Above Ceiling
- Minimum Ceiling Thickness 1.27 cm (0.50 in.); Maximum 3.81 cm (1.5 in.)
- Includes Heater and Fan
- Aluminum and Stainless Steel Construction
- Suitable for Use in Environmental Air Handling (Plenum) Spaces
- IK10 (20J) Impact Resistance
- Light Gray Finish, RAL 7047
- Available with Clear or Smoked Dome

26.67 (10.50)
R7.76 (3.05)
Ø21.38 (8.42)

Indoor Pendant
- Aluminum Construction
- 1.5" NPT (Male) Mounting Thread
- White Finish, RAL 9003
- Available with Clear or Smoked Dome

26.67 (10.50)
R7.76 (3.05)
Ø21.38 (8.42)

Environmental Pendant
- Aluminum Construction
- Includes Heater and Fan
- 1.5" NPT (Male) Mounting Thread
- IK10 (20J) Impact Resistance
- Light Gray Finish, RAL 7047
- Available with Clear or Smoked Dome

CAMERA/OPTICS

Sensor Type	1/3-inch CMOS Sensor
Optical Zoom	20X
Digital Zoom	12X
Maximum Resolution	1920 x 1080
Lens	f/1.6 ~ f/4.2
	focal length 4.3 mm (wide) ~ 86.0 mm (tele)
Horizontal Angle of View	55.4° (wide) ~ 2.9° (tele)
Aspect Ratio	16:9
Shutter Range	1 ~ 1/8,000 sec
Dynamic Range	60 dB
White Balance Range	2,500° to 8,000°K
3D Noise Reduction	Yes (ON/OFF selectable)
Signal to Noise Ratio	50 dB
Light Sensitivity	
Color (33 ms)	0.3 lux
Color (200 ms)	0.08 lux
Mono (33 ms)	0.1 lux
Mono (200 ms)	0.015 lux

Note: Sensitivity in lux for 90% reflectance, f/1.6 (wide angle), 24 dB noise at 30 IRE (30% of signal level).

Day/Night Capabilities	Yes
IR Cut Filter	Yes
Iris Control	Auto iris
Automatic Gain Control	Yes
Active Noise Filtering	Yes

SOFTWARE FEATURES

- 64 Presets
- 4 Tours
- Preset Accuracy: Pan ±0.1°; Tilt ±0.05°
- Multilingual Menus (English, Spanish, Portuguese, Italian, German, French, Russian, Turkish, Arabic, Simplified Chinese, and Korean)
- Password Protection
- 430°/sec Maximum Pan Preset Speed and 200°/sec Maximum Tilt Preset Speed
- 8 Window Blanks, Configurable in Size*
- "Auto Flip" Feature Rotates Dome 180° at Bottom of Tilt Travel
- Configurable Park with Actions
- Proportional Pan/Tilt Continually Decreases Pan/Tilt Speeds in Proportion to Depth of Zoom

*Using the maximum number of window blanks in a single view can affect camera performance and could interrupt certain camera functions.

TECHNICAL SPECIFICATIONS

AUDIO

Streaming
Embedded with stream 1 and stream 2

Input
Line in/terminal block

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

VIDEO

Video Encoding
H.264 High, Main, or Base profiles and MJPEG

Video Streams
Up to 2 simultaneous streams; the second stream is variable based on the setup of the primary stream

Frame Rate
Up to 30, 25, 20, 16.67, 15, 12.5, 10, 7.5, 5, 3, 2, 1 (depending on the coding, resolution, and stream configuration)

Available Resolutions

Resolution				H.264 High Profile (IP GOP structure)
MPx	Width	Height	Aspect Ratio	Maximum IPS
2.07	1920	1080	16:9	30
0.92	1280	720	16:9	30
0.36	1024	576	16:9	30
0.23	960	540	16:9	30
0.13	640	352	16:9	30
0.06	320	180	16:9	30

NETWORK

Supported Protocols
TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, SNMP v2c/v3, QoS, HTTP, HTTPS, LDAP (client), SSH, SSL, SMTP, FTP, and 802.1x (EAP)

Users

Unicast
1 admin and up to 4 viewers simultaneously depending on resolution settings (2 guaranteed streams)

Multicast
Unlimited users H.264

Security Access
Password protected

Software Interface
Web browser view and setup

Pelco System Integration
Endura 2.0 (or later)
Digital Sentry 7.3.208 (or later)

Open API
Pelco API, ONVIF Profile S

Minimum System Requirements

Processor
Intel® Core™ i3 Processor, 2.4 GHz

Operating System
Windows® 7 (32-bit and 64-bit), Windows 8

Memory
4 GB RAM

Network Interface Card
100 megabits (or greater)

Monitor
Minimum of 1024 x 768 resolution, 16- or 32-bit pixel color resolution

Web Browser
Internet Explorer 9.0 (or later), Firefox 31 (or later), or Chrome 23 (or later)

Media Player*
Pelco Media Player† or QuickTime® 7.6.5 for Windows; or QuickTime 7.6.4 for Mac OS X 10.4 (or later)

*This product is not compatible with QuickTime version 7.6.4 for Windows. If you have this version installed on your PC, you will need to upgrade to QuickTime version 7.6.5.

†Pelco Media Player is recommended for control, smoothness, and reduced latency as compared to QuickTime.

GENERAL

Construction

Back Box Assembly	
Indoor	Aluminum and stainless steel
Environmental	Aluminum
Dome Drive Assembly	PC-ABS and sheet metal
Lower Dome Assembly	
Indoor	Polycarbonate and PC-ABS
Environmental	Polycarbonate and aluminum

Light Attenuation

Smoked	50% light attenuation
Clear	f/0.0 light loss

Cable Entry (back box)

In-Ceiling	0.75-inch conduit fitting
Pendant	1.5-inch NPT pendant mount

Weight (approximate)

	Unit	Shipping
In-Ceiling	2.79 kg (6.17 lb)	4.41 kg (9.73 lb)
Environmental In-Ceiling	3.09 kg (6.83 lb)	4.71 kg (10.39 lb)
Standard Pendant	3.10 kg (6.84 lb)	4.67 kg (10.30 lb)
Environmental Pendant	3.12 kg (6.89 lb)	4.69 kg (10.35 lb)

ENVIRONMENTAL

Installation Environment

In-Ceiling	Indoor/environmental
Pendant	Indoor/environmental

Operating Temperature

Indoor	−10° to 50°C (14° to 122°F)
Environmental	−40°C to 50°C (−40° to 122°F)
Operating Humidity	20% to 80% (noncondensing)

Storage — All models

Temperature	−40°C (−40°F)
Humidity	20% to 80% (noncondensing)

Effective Projected Area (EPA)

Without Mount	869 square centimeters (135 square inches)
With IWM Series Mount	1,592 square centimeters (247 square inches)

MECHANICAL

Pan Movement	360° continuous pan rotation
Tilt Movement	+1° to −90°

Preset Speed

Pan	430°/sec
Tilt	200°/sec

Preset Accuracy

Pan	±0.1°
Tilt	±0.05°

Variable Manual Speed

Pan	0.1°/sec to 100°/sec
Tilt	0.1°/sec to 50°/sec

ELECTRICAL

Ports	RJ-45 connector for 100Base-TX
	Auto MDI/MDI-X
	Autonegotiate/manual setting
Cabling Type	Cat5 or better for 100Base-TX
Input Voltage	18 to 32 VAC; 24 VAC nominal

Input Power

Indoor	24 VAC; 26 VA
	PoE+ IEEE 802.3at Class 4, 48 V, 600 mA
Environmental	24 VAC; 50 VA

Alarms

Inputs	4
Output	1; PhotoMOS™ relay (30 V, 1 A)
Triggers	Unsupervised mode that detects switch closures (N.O. and N.C.)

CERTIFICATIONS/RATINGS

- CE, Class A*
- FCC, Class A*
- UL/cUL Listed*
- C-Tick*
- KCC*
- ONVIF Profile S
- Models were tested in accordance with:
  - EC 60068-2-1 Low Temperature
  - EC 60068-2-2 High Temperature
  - EC 60068-2-3 High Temperature & Humidity
  - EC 60068-2-6 Product Vibration
  - EC 60068-2-14 Thermal Shock
  - EC 60068-2-27 Product Shock
  - EC 60068-2-52 Salt Fog
  - EC 62262 Impact (IK10)
  - EC 60529 Ingress for Water & Dust (IP66)
  - ISTA 2A Package Drop
- Meets Type 4X enclosure and IP66 standards when installed properly

*At the time of this printing, this certification is pending. Please consult the factory, our Web site (www.pelco.com), or the most recent B.O.S.S.® update for the current status of certifications.

SYSTEM MODEL NUMBERS

Type	Back Box Color	Dome Assembly	Spectra Professional 2.0 MPx, 20X
In-ceiling, indoor	Black	Smoked with white trim ring	P1220-FWH0
		Clear with white trim ring	P1220-FWH1
In-ceiling, environmental	Black	Smoked with light gray trim ring	P1220-YSR0
		Clear with light gray trim ring	P1220-YSR1
Pendant, indoor	White	Smoked with white trim ring	P1220-PWH0
		Clear with white trim ring	P1220-PWH1
Pendant, environmental	Light Gray	Smoked with light gray trim ring	P1220-ESR0
		Clear with light gray trim ring	P1220-ESR1

COMPONENT MODEL NUMBERS

Dome Assemblies

LDP-FWH-0	In-ceiling, indoor, white trim ring, smoked dome
LDP-FWH-1	In-ceiling, indoor, white trim ring, clear dome
LDP-YSR-0	In-ceiling, environmental, light gray trim ring, smoked dome
LDP-YSR-1	In-ceiling, environmental, clear dome
LDP-PWH-0	Pendant, indoor, white trim ring, smoked dome
LDP-PWH-1	Pendant, indoor, white trim ring, clear dome
LDP-ESR-0	Pendant, environment, light gray trim ring, smoked dome
LDP-ESR-1	Pendant, environment, light gray trim ring, clear dome

RECOMMENDED MOUNTS

IWM-SR, IWM24-SR	Wall mount, with or without integral 24 VAC, 100 VA transformer; can be adapted for corner, parapet or pole application
WMVE-WH	Indoor wall mount; white finish. Can be installed directly to a wall or any vertical surface. Power and video wiring can be routed through the back of the mount or through the conduit access located on the bottom of the mount arm. Can also be polemounted using a PA101 pole mount adapter.
WMVE-SR	Environmental wall mount; light gray finish. Can be installed directly to a wall or any vertical surface. Power and video wiring can be routed through the back of the mount or through the conduit access located on the bottom of the mount arm. Can also be pole-mounted using a PA101 pole mount adapter.
MRCA	Ceiling mount, black
PP4348	Parapet roof mount
PP350/PP351	Parapet wall/roof mount

OPTIONAL ACCESSORIES

MCS Series	Indoor, 24 VAC power supply
WCS Series	Outdoor, 24 VAC power supply
POE1AT-US	Single-port PoE midspan with US power cord
POE1AT-EU	Single-port PoE midspan with European power cord

Refer to individual power supply specifications for more information.

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
- Basic Analytics including Simple Motion Detection and Camera Sabotage
- 24 VAC, 12 VDC, IEEE802.3af (PoE) or 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.

International Standards
Organization Registered Firm;
ISO 9001 Quality System

ISO 9001 CERTIFIED

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 (Auto Tracing White Balance), Auto, and Manual
3D Noise Reduction	Yes (ON/OFF selectable)
Signal to Noise Ratio	≥50 dB
Minimum Illumination	

MP	Lens	Sensitivity	Color		Mono		Mono
			33 ms	200 ms	33 ms	200 ms	(IR On)
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*

Lens

Angle of View	IBP131 Series	IBP231 Series	IBP331 Series	IBP531 Series	IBP232 Series	IBP235 Series	IBP335 Series	IBP532 Series
	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.

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

BASIC ANALYTICS

Sarix Professional range cameras feature basic video analytics including Simple Motion Detection and Camera Sabotage.

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.

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	
IBP131-1ER, IBP231-1ER, IBP331-1ER, IBP531-1ER	IEEE 802.3af PoE, 18 – 32 VAC, 12 VDC +/-10%
IBP232-1ER, IBP235-1ER, IBP335-1ER, IBP532-1ER	IEEE802.3at PoE+, 18 ~ 32 VAC, 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, 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 closures (Normally Open and Normally 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), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, SSH, SSL, SMTP, FTP, 802.1x (EAP), and NTCIP 1205, GB/T28181, ARP, DDNS, ICMP, IGMP, RTCP, SFTP, SIP, TLS/TTLS, 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.X, Digest Authentication, IP Filtering
Software Interface	Web browser view and setup

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 1.0 and 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

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 for the current status of certifications.

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)

Ø 8.90 (3.50)
Ø 10.80 (4.25)
15.48 (6.09)
25.33 (9.97)
26.05 (10.26)
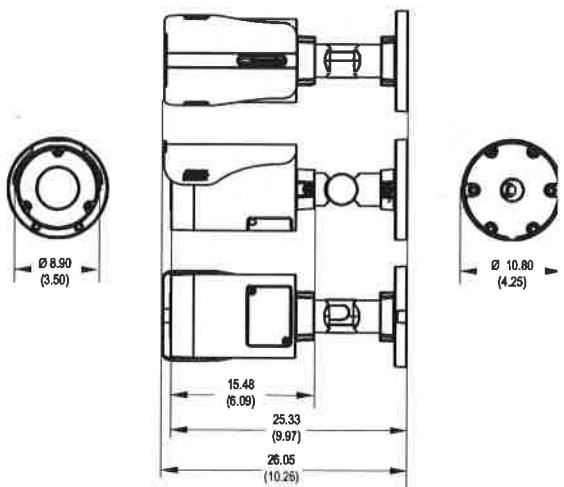
RAL 9003

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

Ø 8.90 (3.50)
Ø 10.80 (4.25)
16.23 (6.39)
26.08 (10.27)
27.45 (10.81)
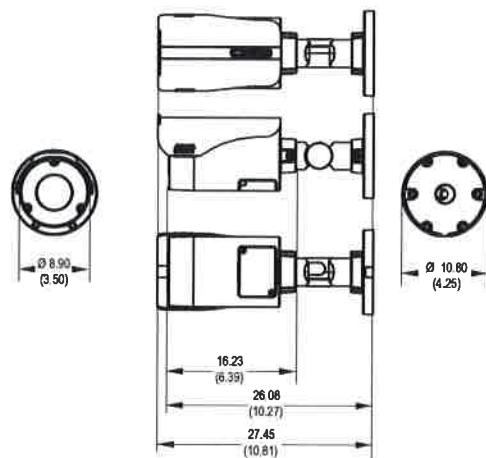
RAL 9003

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**
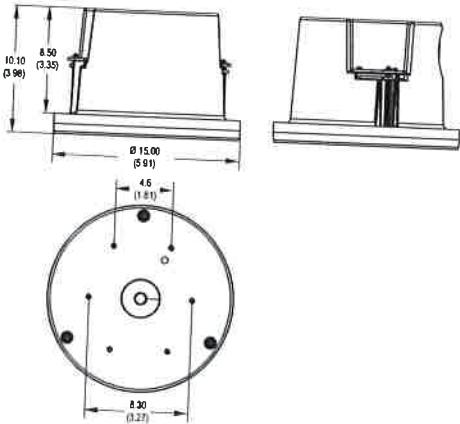
RAL 9003

IBP3BBAP-ES ENVIRONMENTAL SURFACE MOUNT BACK BOX AND ADAPTER PLATE
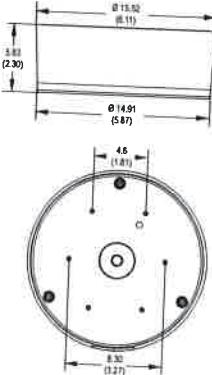
RAL 9003

IBP3-PLMT ENVIRONMENTAL POLE MOUNT

RAL 9003