

Sarix® IBE Series Indoor and Environmental Bullets

UP TO 3 MPX, WDR AND LOW-LIGHT PERFORMANCE, H.264, IK10, IP66

Product Features

- SureVision 3.0 Technology, Including:
 - 130dB Wide Dynamic Range (WDR)
 - Advanced Low-Light Performance
 - Anti-Bloom Technology
 - 3D Noise Filtering
 - Enhanced Tone Mapping
- Up to 3 Megapixel (MPx) Resolution
- Up to 60 Images per Second (ips) at 3MPx
- Autofocus Varifocal 3 ~ 9 mm
- Power over Ethernet (PoE), IEEE 802.3af, 24 VAC, 12 VDC
- Built-in Analytics Suite
- Adaptive IR Illumination up to 30 Meters
- Compatible with Pelco and Third-Party Video Systems

Sarix Enhanced Range with SureVision 3.0

Sarix® Enhanced (E) range cameras feature SureVision technology, delivering high definition (HD) resolution, consistent color science, fast processing power, and simultaneous advanced low-light performance with wide dynamic range (WDR) and anti-bloom technologies. New advancements include 3D noise filtering, smooth response to illumination changes, and improved tone mapping to retain color accuracy and overall image contrast.

Designed to install quickly, the cameras include autofocus, motorized zoom, built-in analytics, and other advanced features needed for demanding security applications.

Camera

The **IBE Series** contains an integrated varifocal MPx autofocus lens (3 ~ 9 mm). All models include a camera in a compact surface mount enclosure that is ready to install. All models feature a sturdy design that is both vandal- and tamper-resistant. The environmental models feature worry-free use in a wide range of environmental operating conditions.

Sarix Enhanced range cameras include four unique, advanced autofocus options: temperature change (every 10°C / 18°F), day/night transition, a daily autofocus routine, and manual autofocus. These benefits ensure clear, focused images regardless of the scene or environment. All autofocus options are available through the web UI.



- ONVIF Profile S and Profile G Conformant
- Full 3-Year Warranty and Support

Video

The **IBE Series** supports two independently-configurable video streams in addition to a service video stream. The streams can be compressed in MJPEG and H.264 formats across several resolution configurations. The **IBE Series** offers real-time video (60 ips) with full HD resolution (up to 3 MPx) using H.264 compression for optimized bandwidth and storage efficiency.

The streams can be configured to a variety of frame rates, bit rates, and group of pictures (GOP) structures for additional flexibility in bandwidth administration. In addition, streams can be encoded as constrained variable bit rate (CVBR) or constant bit rate (CBR).

Open and Integrated

Sarix Enhanced range cameras seamlessly connect to Pelco video management systems such as VideoXpert™, Endura® version 2.0 (or later), and Digital Sentry® version 7.3 (or later). **Sarix Enhanced** range cameras integrate with major third-party video management systems through the Pelco API, and other third-party software and systems through the ONVIF Profile S and Profile G standards.

Built-In Analytics

Analytics enhance the flexibility and performance of **Sarix Enhanced** range cameras. Eight behaviors can be configured and enabled using a standard Web browser, and they are compatible with VideoXpert, Endura, or a third-party system that supports alarms using Pelco's API.

Convenient Power

Sarix Enhanced range cameras are designed with Power over Ethernet (PoE) 24 VAC and 12 VDC to reduce costs and simplify planning, wiring, and installation. PoE functionality works with PoE-enabled network switches or power injectors, eliminating the need for separate power supplies and cabling, and increasing camera fail safety through an uninterruptible power supply (UPS).

ANALYTICS

Sarix Enhanced range cameras includes eight user-configurable behaviors. The camera is capable of running up to two behaviors at the same time.

For each behavior, you can create several custom profiles that contain different camera settings. With these profiles, you can set up different scenarios for the behavior, which will automatically detect and trigger alarms when specific activity is detected.

Analytics are configured and enabled using a standard Web browser, and behavior alarms are compatible with VideoXpert or a third-party system that supports Pelco's API system.

Analytics behaviors can be scheduled to work during a certain time or condition. For example, during the day, a camera can be configured with Object Counting to count the number of people that enter a lobby door. At night, the operator can change the profile to Camera Sabotage to trigger an alarm if a camera is moved or obstructed. Available Pelco behaviors include:

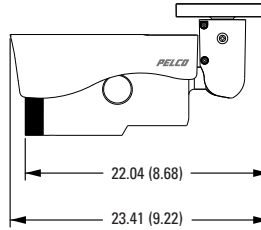
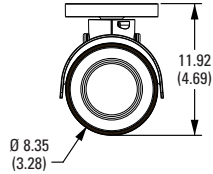
- **Abandoned Object:** Detects objects placed within a defined zone and triggers an alarm if the object remains in the zone unattended. An airport terminal is a typical installation for this behavior. This behavior can also detect objects left behind at an ATM, signaling possible card skimming.
- **Intrusion Detection:** Detects and tracks objects that enter a scene and then triggers an alarm when the objects enter a user-defined zone. This behavior is primarily used in outdoor environments with light traffic to reduce the number of false alarms caused by environmental changes.
- **Camera Sabotage:** Detects contrast changes in the field of view. An alarm is triggered if the lens is obstructed by spray paint, a cloth, or a lens cap. Any unauthorized repositioning of the camera also triggers an alarm.
- **Wrong Direction:** Generates an alarm in a high traffic area when a person or object moves in a specified direction. Typical installations for this behavior include an airport gate or tunnel where cameras can detect objects moving in the opposite direction of the normal flow of traffic or an individual entering through an exit door.
- **Loitering Detection:** Identifies when people or vehicles remain in a defined zone too long. This behavior is effective in real-time notification of suspicious behavior around ATMs, stairwells, and school grounds.
- **Object Counting:** Counts the number of objects that cross a defined line. This behavior can be used to count the number of people at a store entrance/exit or inside a store where the traffic is light. This behavior is based on tracking and does not count people in a crowded setting.
- **Object Removal:** Triggers an alarm if an object is removed from a user-defined zone. This behavior is ideal for customers who want to detect the removal of high value objects, such as a painting from a wall or a statue from a pedestal.
- **Stopped Vehicle:** Detects vehicles stopped near a sensitive area longer than the user-defined time allows. This behavior is ideal for airport curbside drop-offs, parking enforcement, suspicious parking, traffic lane breakdowns, and vehicles waiting at gates.

TECHNICAL SPECIFICATIONS

COMPONENT FEATURES

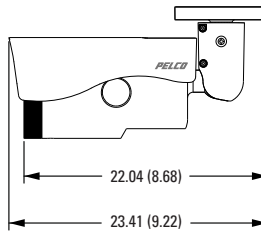
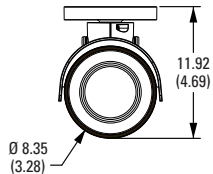


VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.



Indoor Bullet

- SE White 3, RAL 9003
- Aluminum body with plastic heat shield
- IP66, IK10 on front and side
- Camera can mount directly to the wall.



Outdoor Bullet

- Telegrey 4, RAL 7047
- Aluminum body with plastic heat shield
- IP66, IK10 on front and side
- Camera can mount directly to the wall.

CAMERA

Imaging Device	1/2.8-inch
Imager Type	CMOS
Imager Readout	Progressive scan
Highest Resolution	
3 MPx	2048 x 1536
2 MPx	1920 x 1080
1 MPx	1280 x 960
Signal-to-Noise Ratio	>60 dB
Electronic Shutter Range	1/20,000 sec (or faster) to 2 sec
Wide Dynamic Range	>130 dB
White Balance Range	2,000° to 10,000°K
Sensitivity 3 ~ 9 mm	f/1.3; 2,850°K; SNR >20 dB
Color (33 ms)	0.050 lux
Color (500 ms)	0.005 lux
Mono (33 ms)	0.010 lux
Mono (500 ms)	0.001 lux
Mono (IR on)	0.000 lux
Day/Night Capabilities	Yes
Mechanical IR Cut Filter	Yes, (ON/OFF/AUTO selectable), with different set points on lux

LENS

Lens Type	Built-in; varifocal
Focal Length	f/1.3, 3 ~ 9 mm
Focus	Autofocus, motorized
Zoom	Remote
Auto Iris Type	DC drive P-iris lens
Field of View in Degrees	

Lens	Focal Length	Angle of View	
		Horizontal	Vertical
3 ~ 9 mm	Wide	113.7°	61.1°
	Tele	38.0°	21.4°

TECHNICAL SPECIFICATIONS

AUDIO

Streaming Input/Output	Bidirectional: full or half duplex Line level/external microphone input; Single-ended, stereo, 1 Vp-p max. signal
Compression	G.711 PCM 8 bit, 8 kHz mono at 64 kbit/s

MECHANICAL

Pan/Tilt Adjustment	Manual
Pan	360°
Tilt	+5, -90°
Rotation	360°

PHYSICAL

Weight	Unit
Indoor Bullet	940 gm (2.07 lb)
Environmental Bullet	940 gm (2.07 lb)

ENVIRONMENTAL

Operating Temperature	
Indoor/Vandal-Resistant	-10° to 55°C (14° to 131°F) [†]
Environmental	-40° to 55°C (-40° to 131°F) [†]
Start-Up Temperature	
Indoor/Vandal-Resistant	-10°C (14°F)
Environmental With Heater	-40°C (-40°F)
Storage Temperature	
Indoor and Environmental	-40° to 60°C (-40° to 140°F)
Operating Humidity	
Indoor/Vandal-Resistant	10 to 90%, RH noncondensing
Environmental	0 to 90%, RH condensing
Storage Humidity	20 to 80%, RH noncondensing
Impact Resistance	IK10, all surfaces, per IEC 62262

ELECTRICAL

Network Port	RJ-45 connector for 100Base-TX Auto MDI/MDI-X
Cable Type	Cat5 or better for 100Base-TX
Input Power	PoE (IEEE 802.3af, Class 3), 12 VDC, 24 VAC
Power Consumption [†]	8.5 W nominal
Current Consumption	350 mA maximum
Local Storage	SD, SDHC, SDXC
Alarm	Detects open or closed alarm state
Input	5 VDC maximum, 0.5 mA maximum
Relay Output	±350V VDC maximum, ±130 mA maximum

NETWORK

Supported Protocols	TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, SSH, SSL, SMTP, FTP, ARP, ICMP, and 802.1x (EAP)
Users	
Unicast	Up to 20 simultaneous users depending on the resolution settings
Multicast	Unlimited users H.264
Security Access	Password protected
Software Interface	Web browser view and setup

TECHNICAL SPECIFICATIONS

VIDEO

Video Streams Independently configurable primary and secondary streams plus service stream
 Available Resolutions Two configurable streams as follows:

Camera Model	MPx	Width	Height	Aspect Ratio		
3 MPx	3.0	2048	1536	4:3		
	1.8	1600	1200	4:3		
	1 MPx	1.2	1280	960	4:3	
		0.5 MPx	0.5	800	600	4:3
			0.3 (480p)	640	480	4:3
		0.07	320	240	4:3	
3 MPx and 2 MPx	2.0 (1080p)	1920	1080	16:9		
	1 MPx	0.9 (720p)	1280	720	16:9	
		0.6	1024	576	16:9	
		0.5	960	544	16:9	
	0.5 MPx	0.3	800	448	16:9	
		0.2	640	360	16:9	
		0.06	320	192	16:9	

Frame Rate Up to 60, 50, 30, 25, 20, 16, 15, 12, 10, 8, 7, 6, 5, 4, 3, 2, 1 (depending on the coding, resolution, and stream and WDR configuration)
 Video Encoding H.264 High, Main, or Base profiles; and MJPEG
 Bit Rate Control Constrained variable bit rate (CVBR), constant bit rate (CBR)
 Service Stream JPEG stream; the JPEGs will be the same resolution as the primary stream

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) or Mozilla® Firefox® 3.5 (or later); Internet Explorer 8.0 (or later) is recommended for configuring analytics
 Media Player† Pelco Media Player for Windows 7, XP, or Vista; or QuickTime 7.6.4 for Mac OS X 10.4 (or later)

ANALYTICS

Required Systems for Analytics
 Open API The Pelco API can transmit behavior alarm data to third-party applications, available at pdn.pelco.com

INTEGRATION

Pelco System Integration VideoXpert
 Endura 2.0 (or later)
 Digital Sentry 7.3 (or later)
 DX4700/DX4800
 Open API Pelco API or ONVIF Profile S and Profile G
 Mobile Application Integrated with Pelco Mobile Application

SOFTWARE FEATURES

- Multilingual menus in user interface: Arabic, English, French, Italian, German, Korean, Spanish, Portuguese, Russian, Simplified Chinese, Turkish
- 16 window blanks, configurable in size
- Password protection
- Snapshot with JPEG capture at 2016 x 1523 resolution
- Text overlays for camera name, time, date
- Image overlays

CERTIFICATIONS/RATINGS*

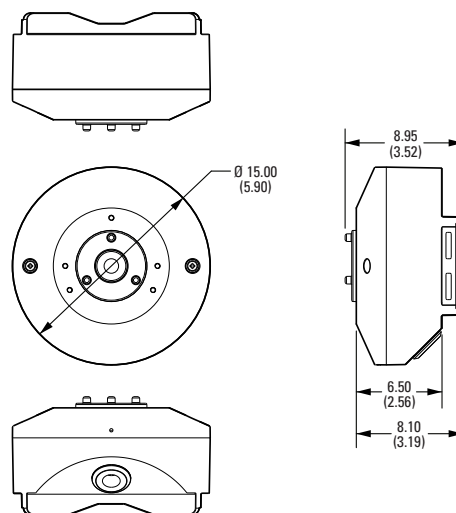
- CE (Class A)
- FCC (Class A)
- ICES-003 (Class A)
- UL/cUL Listed
- UL/IEC 60950-22
- KC
- RCM
- Meets Type 4X, IP66 rating (Environmental), and IK10 (vandal resistant)
- ONVIF Profile S and Profile G Conformant

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

RECOMMENDED MOUNTS

IBE-PLMT-E Environmental pole mount
 IBE-WLMT-E Environmental wall mount
 IBE-WLMT-I Indoor wall mount

IBE-PLMT-E ENVIRONMENTAL POLE MOUNT

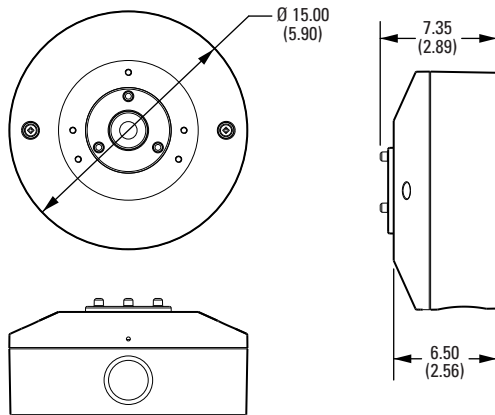


TECHNICAL SPECIFICATIONS

MODELS*

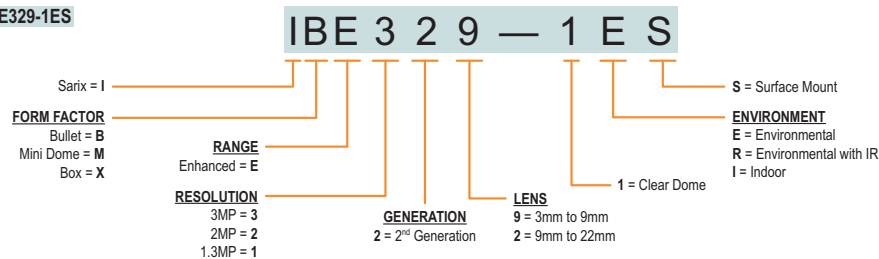
Resolution	Model Number	Lens	Description
1.3 MPx	IBE129-1I	3 ~ 9 mm	Sarix Enhanced Indoor Bullet
1.3 MPx	IBE129-1R	3 ~ 9 mm	Sarix Enhanced Environmental Bullet
2 MPx	IBE229-1I	3 ~ 9 mm	Sarix Enhanced Indoor Bullet
2 MPx	IBE229-1R	3 ~ 9 mm	Sarix Enhanced Environmental Bullet
3 MPx	IBE329-1I	3 ~ 9 mm	Sarix Enhanced Indoor Bullet
3 MPx	IBE329-1R	3 ~ 9 mm	Sarix Enhanced Environmental Bullet

IBE-WLMT-E (ENVIRONMENTAL) & IBE-WLMT-I (INDOOR) WALL MOUNT



HOW TO ORDER

Example: **IBE329-1ES**



Pelco by Schneider Electric
 3500 Pelco Way, Clovis, California 93612-5699 United States
USA & Canada Tel (800) 289-9100 Fax (800) 289-9150
International Tel +1 (559) 292-1981 Fax +1 (559) 348-1120
www.pelco.com www.pelco.com/community

Pelco, the Pelco logo, and other trademarks associated with Pelco products referred to in this publication are trademarks of Pelco, Inc. or its affiliates. ONVIF and the ONVIF logo are trademarks of ONVIF Inc. All other product names and services are the property of their respective companies. Product specifications and availability are subject to change without notice. ©Copyright 2016, Pelco, Inc. All rights reserved.