

# Sarix® IMP Indoor and Environmental Domes

## UP TO 5 MP, H.265, H.264, WDR, DAY/NIGHT IP DOMES

### Product Features

- H.265, H.264 Main, High, MJPEG video encoding
- Up to 5 MP resolution at 30 frames per second
- Up to 60 frames per second (ips) at 4 MP for 5 MP cameras
- Autofocus motorized remote zoom lens
- Integrated adaptive IR illumination up to 50 m (some models)
- Operating temperature up to 60°C (140°F) (environmental models)
- Micro SDHC and SDXC card up to 2 TB addressable, 128 GB testable
- Pelco Pro Analytics Suite including Adaptive Motion, Object Counting, Motion Detection, Camera Sabotage
- Power over Ethernet (PoE or PoE+), 24 VAC, 12 VDC
- Pelco Smart Compression Technology
- All models vandal resistant to IK10
- Compatible with Pelco and third-party video management systems
- ONVIF Profile S, Profile G, 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 camera and a box camera. Mix and match the performance options and form factor you need for almost any lighting condition, environment, and application.

### IMP Dome Series Camera

Within the **Sarix Professional** range, the **Sarix IMP Series** dome cameras feature 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 IMP Series** features advanced color science and true WDR, optional adaptive IR illumination for increased visibility in difficult lighting conditions. IK10 vandal resistant on both indoor and outdoor domes and IP66/IP67 on the outdoor dome ensures enough robustness for installation in 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™, VXToolbox, Endura® version 2.0 (or later), and Digital Sentry® version 7.3 (or later). **Sarix Professional** range cameras integrate with major third-party systems through the open Pelco API or the ONVIF Profile S, Profile G, and Profile T standards.

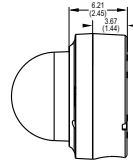
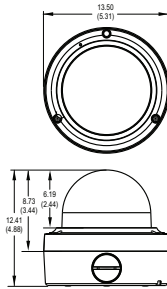
### Standard Web Interface

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

# TECHNICAL SPECIFICATIONS

## BACK BOX FEATURES

 VALUES IN PARENTHESES ARE INCHES; ALL OTHERS ARE CENTIMETERS.

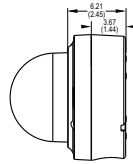
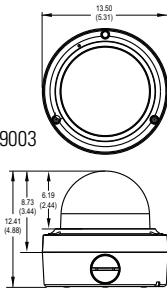


### Indoor Surface Mount

- Aluminum Body and Trim Ring; Polycarbonate Bubble
- RAL 9003
- IK10 (20J) Impact Resistance
- IEEE802.3af PoE, 18 ~ 32 VAC, 12 +/-10% VDC
- IR Illumination 50 m
- IP 64 Ingress Protection



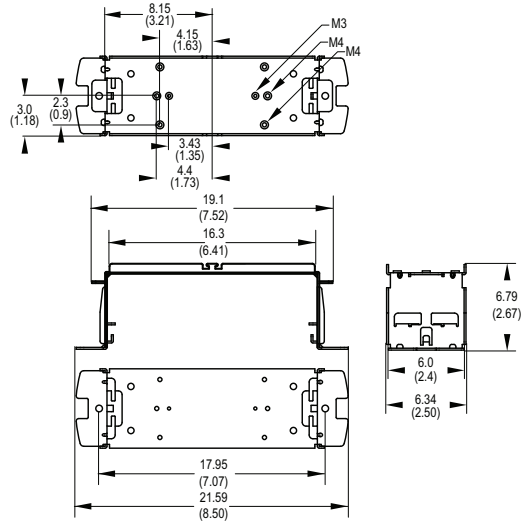
Color: RAL 9003



### Environmental Surface Mount

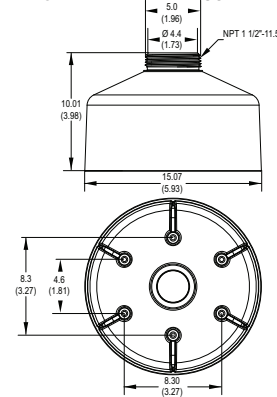
- Aluminum Body and Trim Ring; Polycarbonate Bubble
- RAL 9003
- Type 4X, When Used with IMP3EBAP
- IK10 (20J) Impact Resistance
- IEEE802.3at PoE, 18 ~ 32 VAC, 12 +/-10% VDC
- IR Illumination 50 Meters
- IP66, IP67 Ingress Protection

### IMP3ICM-1E IN-CEILING BRACKET



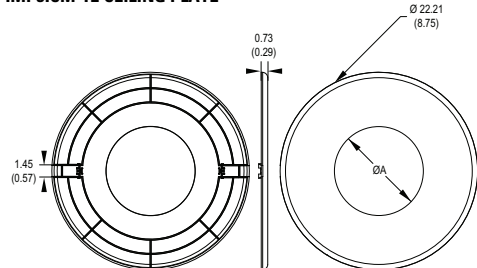
Color: RAL 9003

### IMP3PM-1E PENDANT MOUNT



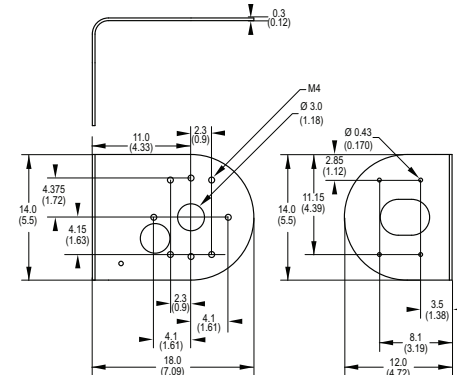
Color: RAL 9003

### IMP3ICM-1E CEILING PLATE



Color: RAL 9003

### IMP3PMB-1I WALL MOUNT BRACKET



Color: RAL 9003

# TECHNICAL SPECIFICATIONS

## CAMERA

Imaging Device	1/2.8-inch
Imager Type	CMOS
Imager Readout	Progressive scan
Highest Resolution	
5MP	2592 x 1944 (5.0 MP)
3MP	2048 x 1536 (3 MP)
2 MP	1920 x 1080 (2 MP)
1 MP	1280 x 960 (1 MP)
Electronic Shutter Range	1/32,000 to 1 sec
True Wide Dynamic Range	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)

Minimum Illumination

MP	Lens (Nominal)	Sensitivity	Color		Mono		Mono (IR on)
			33 ms	200 ms	33 ms	200 ms	
5 MP	2.8 ~ 12 mm	f/1.4	0.26 lux	0.065 lux	0.15 lux	0.0375 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
2 MP	2.8 ~ 12 mm	f/1.4	0.0169 lux	0.00416 lux	0.01 lux	0.0025 lux	0.0 lux
1 MP	2.8 ~ 2 mm	f/1.4	0.0169 lux	0.00416 lux	0.01 lux	0.0025 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 meters; auto ON in night mode, or OFF
Signal to Noise Ratio	≥50 dB

## LENS

Lens Type	Built-in; varifocal
Focal Length	f/1.4, 2.8 ~ 12 mm nominal
Focus	Autofocus, motorized
Zoom	Remote
Auto Iris Type	DC-Iris

Field of View\*

Focal Length	Angle of View	1 MP	2 MP	3 MP	5 MP
2.8 ~12 mm nominal	Diagonal	96°~ 32°	123°~ 40°	120°~ 39°	124°~ 40°
	Horizontal	74°~ 26°	103°~ 35°	90°~ 31°	94°~ 32°
	Vertical	55°~ 20°	54°~ 20°	66°~ 23°	68°~ 24°

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

# TECHNICAL SPECIFICATIONS

## VIDEO

Video Streams

Up to three 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.

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

## AUDIO

Streaming

Bi-directional full duplex

Built-In Microphone

60 SPL @ 25 ft > 40 dB SNR (Indoor models only)

Input

Line level, 3K 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

## ELECTRICAL

Network Port	RJ-45 connector for 10/100Base-TX
Power Input	IEEE802.3af PoE (Indoor), IEEE802.3at (Environmental) 18 ~ 32 VAC, 12 ± 10% VDC

Indoor Dome

Model	Power Input	Power Consumption (Watts or VA)		
		Typical	Maximum (Models without IR)	Maximum (Models with IR)
IMP131 IMP231	12 VDC	4.3 W	5.4 W	8.4 W
	24 VAC	4.4 W	5.3 W	7.9 W
	PoE	5.2 W	9.6 W	12 W
IMP331	12 VDC	5 VA	5.4 VA	8.4 VA
	24 VAC	5 VA	5.8 VA	7.9 VA
	PoE	5.8 VA	9.6 VA	12 VA
IMP531	12 VDC	7.5 W	8.4 W	10.2 W
	24 VAC	7 W	7.2 W	9.4 W
	PoE	8.1 W	12 W	12 W

Environmental Dome

Model	Power Input	Power Consumption (Watts or VA)		
		Typical	Maximum (Models without IR)	Maximum (Models with IR)
IMP131 IMP231	12 VDC	3 W	14.4 W	16.8 W
	24 VAC	3 W	13.0 W	14.4 W
	PoE	3 W	14.4 W	16.8 W
IMP331	12 VDC	3 W	14.4 W	16.8 W
	24 VAC	3 W	13.0 VA	14.4 W
	PoE	3 W	14.4 VA	16.8 W
IMP531	12 VDC	3 W	16.8 W	19.2 W
	24 VAC	3 W	14.4 W	15.8 W
	PoE	3 W	16.8 W	16.8 W

Local Storage      Micro SDHC and SDXC card, 2 TB addressable, 128 GB or more 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)

Analog Output      IMP531-1ERS only

## ENVIRONMENTAL

Operating Temperature	
Environmental	-40° to 60°C (-40° to 140°F)
Indoor	-10° to 55°C (14° to 131°F)
Storage Temperature	-40° to 70°C (-40° to 158°F)
Operating Humidity	5% to 95%, RH condensing (environmental models) 5% to 90%, RH noncondensing (indoor models)
Storage Humidity	20% to 80%, RH noncondensing
Shock and Vibration	
Resistance	IEC 60068:2-6 and 2-27
Impact Resistance	IK10 (20 Joules)

Ingress Protection      IP64 (Indoor models) & IP66/67, Type 4X (Environmental models)

## GENERAL

Construction	Aluminum; polycarbonate bubble
Finish	RAL 9003
Weight	
Unit	0.86 kg (1.90 lb)
Shipping	1.20 kg (2.65 lb)
Pan/Tilt Adjustment	Manual
Pan	0° ~ 370°
Tilt	-15° ~ -90°
Rotate	0° ~ 355°

## NETWORK

Supported Protocols      TCP/IP, UDP/IP (unicast, multicast IGMP), UPnP, DNS, DHCP, RTP, RTSP, NTP, IPv4, IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, SSH, SSL, SMTP, FTP, 802.1x (EAP), and NTCIP 1205, ARP, DDNS, ICMP, IGMP, RTCP, SFTP, SIP, TLS/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;  
  VX Toolbox;  
  Endura 2.0 (or later);  
  Digital Sentry 7.3 (or later);  
Open API      Third-party VMS through Pelco API, ONVIF Profile S, Profile G, and Profile T  
Mobile Application      Pelco Mobile  
Local Storage      Capture 1-, 5- or 10-second video clips on camera sabotage, motion detection, or alarm input; record video continuously in the case of network outage with option to overwrite; access video through FTP protocol and ONVIF Profile G  
Camera Discovery      VX Toolbox  
Firmware Upgrade      Web UI or VX Toolbox  
Web Browser Support      Microsoft® Internet Explorer® 8.0, Mozilla® Firefox® 3.5, Google® Chrome™ 61.0 and later  
Multilingual User Interface      English, French, German, Italian, Portuguese, Arabic, Russian, Spanish, Turkish, Korean, Simplified Chinese

# TECHNICAL SPECIFICATIONS

## SYSTEM MODEL NUMBERS\*

Back Box	Resolution	Lens (Nominal)	Model Number	Description
Surface	1 MP	2.8 ~ 12 mm	IMP131-1ERS	Sarix Pro Environmental IR Dome
	1 MP	2.8 ~ 12 mm	IMP131-1IRS	Sarix Pro Indoor IR Dome with Microphone
	2 MP	2.8 ~ 12 mm	IMP231-1ES	Sarix Pro Environmental Dome
	2 MP	2.8 ~ 12 mm	IMP231-1ERS	Sarix Pro Environmental IR Dome
	2 MP	2.8 ~ 12 mm	IMP231-1IS	Sarix Pro Indoor Dome with Microphone
	2 MP	2.8 ~ 12 mm	IMP231-1IRS	Sarix Pro Indoor IR Dome with Microphone
	3 MP	2.8 ~ 12 mm	IMP331-1ES	Sarix Pro Environmental Dome
	3 MP	2.8 ~ 12 mm	IMP331-1ERS	Sarix Pro Environment IR Dome
	3 MP	2.8 ~ 12 mm	IMP331-1IS	Sarix Pro Indoor Dome with Microphone
	3 MP	2.8 ~ 12 mm	IMP331-1IRS	Sarix Pro Indoor IR Dome with Microphone
	5 MP	2.8 ~ 12 mm	IMP531-1ES	Sarix Pro Environmental Dome
	5 MP	2.8 ~ 12 mm	IMP531-1ERS	Sarix Pro Environmental IR Dome
	5 MP	2.8 ~ 12 mm	IMP531-1IS	Sarix Pro Indoor Dome with Microphone
	5 MP	2.8 ~ 12 mm	IMP531-1IRS	Sarix Pro Indoor IR Dome with Microphone

\*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
- UL/IEC/EN 60950-22 (environmental models only)
- ICES-003 (Class A)
- RCM
- KCC
- NOM
- EAC
- BIS
- Type 4X (environmental models only) when installed properly with IMP3EBAP
- IP66/67 (environmental models only) when installed properly
- IEC 60068:2-6 and 2-27
- ONVIF Profile S, Profile G, and Profile T conformant

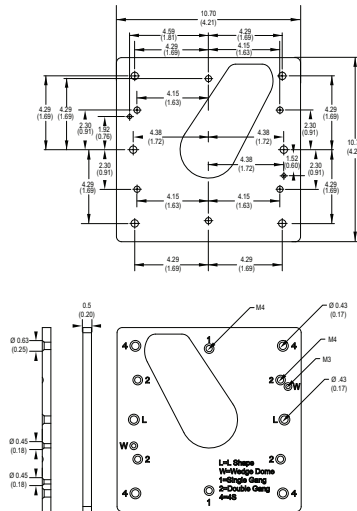
## RECOMMENDED MOUNTS

WMVE-SW	Wall mount arm, 1.5 in. NPT
PA101 with WMVE-SW	Pole Mount
IMP3PMB-1I	Wall mount
IMP3ICM-1E	In-ceiling mount
IMP3PM-1E	Pendant mount
IMM-CM with WMVE-SW and IMP3PM-1E	Corner mount

## OPTIONAL ACCESSORIES

IMP3EBAP	4S electrical box adapter
IMP3LD-0E	Smoked environmental lower dome
IMP3LD-0I	Smoked indoor lower dome
IMP3LD-1E	Clear environmental lower dome
IMP3LD-1I	Clear indoor lower dome

### IMP3EBAP 4S ELECTRICAL BOX ADAPTER



Color: 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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