

## **IMF Series Pelco Fisheye Cameras**

### **8 MP and 12 MP, 360° Panoramic Views**

#### **Product Features**

- Cost effective 360° coverage
- Easy-to-install with In-Ceiling and Surface Mount options
- Pelco Smart Analytics for expanded object detection and classification
- H.264 and H.265 encoding and Pelco Smart Compression technologies
- SureVision technology including excellent low light and true wide dynamic range (WDR)
- Models with Adaptive Infrared (IR) technology
- IK10 impact rating for vandal resistance (Environmental models)
- IP66 and IP67 ratings for water resistance, type 4X enclosure (Surface Mount Environmental models)
- Built-in microphone for optional audio capture
- Onvif Profiles S, G, and T conformant
- Support for one microSD card
- Five year warranty



#### **Camera System**

The Pelco IMF Series Fisheye camera is a cost-effective and easy-to-install video security solution that provides 360° panoramic views of large areas from a single vantage point, bringing superior situational awareness without any blind spots. With client side de-warping it also enables you to pan tilt and zoom into the field of view both live as well as forensically.

Manufactured in North America, this camera delivers excellent image quality, performance, IR capabilities, built-in video analytics and Smart Compression and includes a 5 year warranty.

Facilities such as schools, retailers, commercial offices, hotels, and casinos can leverage the Pelco IMF Series Fisheye camera's high-resolution total coverage to monitor wide areas and optimize operations. Its built-in AI-powered Pelco Smart Analytics can reliably detect critical events and enhance the productivity of security teams by quickly focusing resources on events of concern.

The Pelco IMF Series Fisheye camera features our SureVision technology, which combines advanced low-light capability, true wide dynamic range (WDR), and anti-bloom capabilities to deliver outstanding

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image quality in challenging and changing lighting conditions. With up to 30 frames per second, the camera delivers real time video, without sacrificing image quality.

The camera offers a sleek, low-profile design to provide an unobtrusive monitoring solution. Its in-ceiling mount provides a paintable front plate that facilities can customize to fit in with interior aesthetics. The surface mount models are vandal and ingress rated to meet the challenges of outdoor deployments. In addition, the camera's built-in microphone enables an optional audio capture capability for additional evidentiary detail.

### Video

The IMF Series Fisheye camera provides options for two simultaneous video streams. The two 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. Smart Compression is available on both H.264 and H.265, minimizing storage and bandwidth utilization.

### Open and Integrated

The IMF Series Fisheye camera seamlessly connects to Pelco VideoXpert video management systems. The IMF Series Fisheye camera also integrates with major third-party systems through the ONVIF Profile S, G, and T standards.

### Standard Web Interface

Pelco IMF Series Fisheye 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.

### Pelco Analytics

IMF Series Pelco Fisheye Cameras feature Pelco's most advanced analytics technology.

#### Basic Analytics

IMF Series Pelco Fisheye Cameras cameras feature basic video analytics including Simple Motion Detection and Camera Sabotage.

**Simple Motion Detection:** These algorithms allow the camera to record or send an alarm when there is motion detected in a selected zone or with the entire scene.

**Camera Sabotage:** An alarm is triggered if the lens is obstructed or when the camera is repositioned.

#### Pelco Smart Analytics

Pelco Smart Analytics uses object detection and people classification AI technologies delivering improved accuracy in both perimeter protection and in crowded, indoor environments. Added processing power enables the tracking and classification of over 50 objects. Objects are classified even when they remain stationary. Pelco Smart Analytics operate when the IMF Series cameras are positioned using the in-ceiling mount configuration. Several different object behaviors can be recognized to create events integrated with many VMS systems.

**Objects in Area:** The event is triggered when the selected object type moves into the region of interest.

**Object Loitering:** The event is triggered when the selected object type moves into the region of interest and then stays for an extended amount of time.

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**Objects Crossing Beam:** The event is triggered when the specified number of objects have crossed the directional beam that is configured over the camera's field of view. The beam can be unidirectional or bidirectional.

**Object Appears or Enters Area:** The event is triggered by each object that enters the region of interest. This event can be used to count objects.

**Object Not Present in Area:** The event is triggered when no objects are present in the region of interest.

**Objects Enter Area:** The event is triggered when the specified number of objects have entered the region of interest.

**Objects Leave Area:** The event is triggered when the specified number of objects have left the region of interest.

**Object Stops in Area:** The event is triggered when an object moves into a region of interest and then stops moving for the specified threshold time.

**Direction Violated:** The event is triggered when an object moves in the prohibited direction of travel.

### Pelco's Smart Compression Technology

Pelco's Smart Compression Technology lowers bandwidth and storage requirements by up to 70%, depending on scene complexity and extent of motion present. 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.

### Technical Specifications

#### Camera/Optics

Item	8 MP	12 MP
Image Sensor	1/1.8" progressive scan CMOS	1/2.3" progressive scan CMOS
Maximum Resolution (H x V) and Aspect Ratio: Client-side dewarped streams		
Primary	2048 x 2048	3008 x 3008
Secondary	512 x 512, 384 x 384	512 x 512, 384 x 384
Tertiary	320 x 320	320 x 320
Maximum Resolution (H x V) and Aspect Ratio: In-camera dewarped streams		
Primary		
Dewarp Mode 180 x 2	2304 x 928	3072 x 1232
Dewarp Mode 120 x 3	1536 x 928	2048 x 1232
Dewarp Mode 90 x 4	1152 x 928	1536 x 1232

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Item	8 MP	12 MP
Secondary		
Dewarp Mode 180 x 2	576 x 232	768 x 304
Dewarp Mode 120 x 3	384 x 232	512 x 304
Dewarp Mode 90 x 4	288 x 232	384 x 304
Tertiary	N/A	
Sensor Imaging Area (H x V)	4.096 mm x 4.096 mm	4.662 mm x 4.662 mm
Dynamic Range		
WDR Off	Up to 83 dB	
WDR On	Up to 120 dB	
Maximum Frame Rate		
Modes	- Full Feature (FF): Analytics - Dewarp Streaming: No Analytics	- Full Feature (FF): Analytics - High Framerate (HF): No Analytics - Dewarp Streaming: No Analytics
High Framerate	N/A	- WDR OFF - 60 Hz: 30 FPS - 50 Hz: 25 FPS - WDR ON - 60 Hz: 24 FPS - 50 Hz: 25 FPS
Full Feature	- WDR OFF - 60 Hz: 30 FPS - 50 Hz: 25 FPS - WDR ON - 60 Hz: 20 FPS - 50 Hz: 20 FPS	- WDR OFF - 60 Hz: 15 FPS - 50 Hz: 14.28 FPS - WDR ON - 60 Hz: 15 FPS - 50 Hz: 14.28 FPS
3D Noise Reduction Filter	Yes	
Lens	1.4 mm	1.6 mm
IR Illumination Max Distance (high power 850 nm LEDs)	17 m (55 ft) max distance at 0 lux	12 m (39 ft) max distance at 0 lux
Horizontal Angle of View	180°	

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Item	8 MP	12 MP
Field of View	360°	
Minimum Illumination		
With IR	0 lux	0 lux
Without IR	Color; 0.20 lux, Mono; 0.10 lux	Color; 0.38 lux, Mono; 0.19 lux
Maximum Aperture	F2.0	
Iris Control	Fixed iris	

### Image Control

Item	Description
Video Encoding	H.264, H.265, Motion JPEG, Pelco Smart Compression
Video Streams	Multi-stream H.264, Multi-stream H.265, Motion JPEG
Motion Detection	Pixel motion and classified object detection
Camera Sabotage	Yes, video analytics based
Electronic Shutter Control	Automatic, Manual (1/6 to 1/8000 sec)
Day/Night Control	Automatic, Manual
Flicker Control	60 Hz, 50 Hz
White Balance	Automatic, Manual
Backlight Compensation	Adjustable
Privacy Zones	Up to 64 zones

### Analytics

Item	Description
Motion Detection	Pixel motion: Selectable sensitivity and threshold
Camera Sabotage	Yes, video analytics based

### Network

Item	Description
Network	100BASE-TX, RJ45 Connector, CAT5e Cabling
Open API	ONVIF compliance Profile S, Profile T, and Profile G ( <a href="http://www.onvif.org">www.onvif.org</a> )

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Item	Description
Cybersecurity	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication
Protocols	Pv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP
Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP
Device Management Protocols	SNMP v2c, SNMP v3

### Audio

Item	Description
Audio Compression Method	Opus, G.711 PCM 8 kHz
Audio Input/Output	Line level I/O and built-in microphone (can be enabled)
External I/O Terminals	Alarm In: Digital input for connecting an external input sensor (for example: a motion detector) Alarm Out: Digital output for controlling an external output device (for example: a siren)

### Mechanical

Item	Surface Mount	In-Ceiling Mount
Dimensions (L x W x H)		
Camera	153 mm x 153 mm x 61 mm (6" x 6" x 2.4")	200.6 mm x 200.6 mm x 14.2 mm (7.9" x 7.9" x 0.56")
With wall mount	153 mm x 153 mm x 61 mm (6" x 6" x 2.4")	N/A
With pendant mount	168 mm x 168 mm x 113 mm (6.6" x 6.6" x 4.5")	N/A
Weight		
Camera	0.678 kg (1.49 lbs)	0.595 kg (1.31 lbs)
With wall mount	0.753 kg (1.66 lbs)	N/A
With pendant mount	1.004 kg (2.21 lbs)	N/A
Maximum Ceiling Thickness	N/A	31.75 mm; 1.25"
Dome Bubble	Polycarbonate, clear	N/A

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Item	Surface Mount	In-Ceiling Mount
Body	Aluminum	Polycarbonate
Housing	Aluminum	Polycarbonate
Finish	Cast, powder, Pantone 427C	Plastic, injection, Pantone 427C

#### Storage

Item	Description
Onboard Storage	2 x microSD/microSDHC/microSDXC slots – video speed class card required. Class V10 or better recommended. One of the two SD card slots is reserved for future use.

#### Electrical

Item	Surface Mount	In-Ceiling
Power Consumption	With IR: 26 W Without IR: 11 W	11 W
Power Source	VDC: 12 V +/-10%, 26 Wmin PoE (with IR at reduced IR power, and without IR): IEEE 802.3af Class 3 PoE+ (with IR at full IR power): IEEE 802.3at Class 4	VDC: 12 V +/-10%, 11 Wmin PoE: IEEE 802.3af Class 3
Power Connector	2-pin terminal block	
RTC Battery Backup	3V manganese lithium	
Memory	2 GB RAM, 512 MB Flash	

#### Environmental

Item	Surface Mount	In-Ceiling Mount
Operating Temperature	-40 °C to +60 °C (-40 °F to 140 °F)	-10 °C to +60 °C (14 °F to 140 °F)
IR Illuminator Behavior	IR illuminator will turn off if the temperature is 55 °C (131 °F) or higher. The illuminator will operate at 75% power if the temperature is between 27 °C (80 °F) and 39 °C (102 °F) and will operate at 40% power if the temperature is between 39 °C (102 °F) and 55 °C (131 °F). Hysteresis: 2 °C (3.6 °F).	N/A

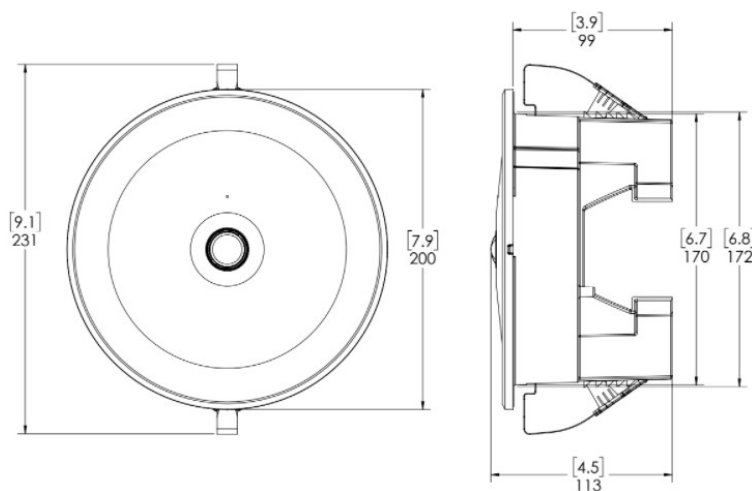
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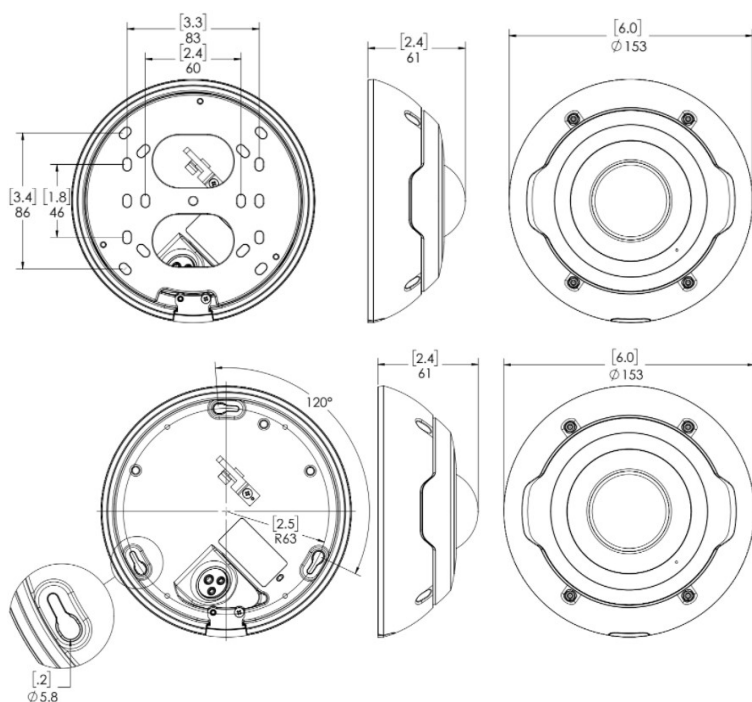
Item	Surface Mount	In-Ceiling Mount
Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)	
Humidity	0 - 95% non-condensing	

### Dimensions

#### In-Ceiling Mount Camera



#### Surface Mount Camera

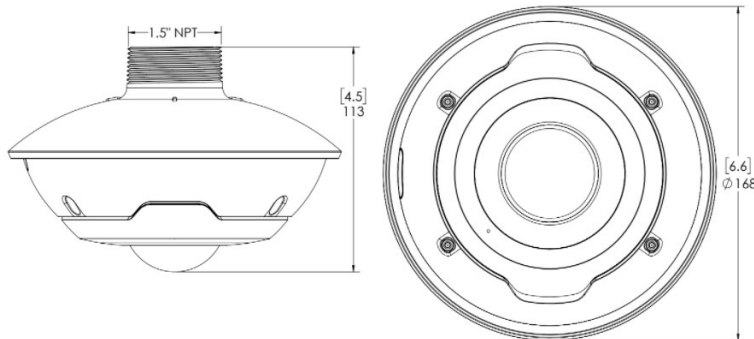




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### Pendant Mount Camera



**Note:** Values in parentheses are inches; all others are millimeters.

### System Model Numbers

Model #	Description
IMF82-1I	8 MP Fisheye in-ceiling mount indoor IP camera
IMF82-1ES	8 MP Fisheye environmental surface mount IP camera
IMF82-1ERS	8 MP Fisheye environmental built-in IR illumination surface mount IP camera
IMF122-1I	12 MP Fisheye in-ceiling mount indoor IP camera
IMF122-1ES	12 MP Fisheye environmental surface mount IP camera
IMF122-1ERS	12 MP Fisheye environmental built-in IR illumination surface mount IP camera

### Accessories

Part Number	Description
IMF-PM	Pendant mount adapter for environmental IMF Series cameras
IMF-LD1	Replacement lower dome bubbles clear 3-pack for environmental IMF Fisheye cameras up to 12 MP resolution
IMF-INSTKT	Replacement installation kit for IMF Series camera
IMFI-INSTKT	Installation kit for IMF Series In-ceiling camera
IMF-PNL	Ceiling panel for IMF Series In-ceiling camera
WMVE-AW	Wall mount vandal resistant environmental for 1.5-inch NPT pendant, Pantone 427C
IMM-CMAW	Corner mount for WMVE-AW, Pantone 427C
PA101-AW	Pole mount adapter for WMVE-AW, Pantone 427C

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Part Number	Description
PP350-AW	Parapet wall mount, Pantone 427C
PP351-AW	Parapet rooftop mount, Pantone 427C
POE130-XT	Single-port PoE Gigabit extender powered by POE190-BT injector
POE130-AT (US or EU)	Single-port PoE+ midspan with power cord
PEO430-AT (US or EU)	4-port, 30 W per port PoE midspan with power cord
PEO1236-AT (US or EU)	12-port, 36 W PoE midspan
PEO2436-AT (US or EU)	24-port, 36 W PoE midspan

### Certifications

- UL/cUL Listed
- CE
- ROHS
- IRCM
- RCM
- EAC
- UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC 62471
- IK10 Impact Rating, IP66 and IP67 Weather Rating
- Type 4X enclosure
- FCC Part 15 Subpart B Class B, IC ICES-003 Class B, EN 55032 Class B, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3
- EN 55035, EN 61000-6-1

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**CAUTION:** This document is preliminary. It is subject to change without notice; performance and functional specifications should not be considered actual / final.



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