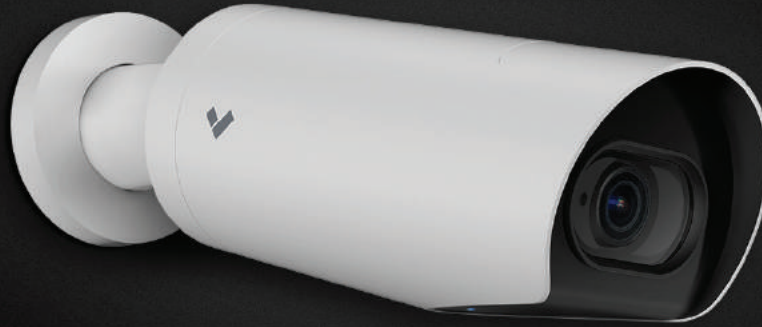




# Bullet Series

Powerful video security built for the toughest environments



**TURN-KEY  
TECHNOLOGIES**

**Turn-key Technologies, Inc.**

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## Overview

Verkada's Bullet Series delivers enterprise-grade security with leading edge-based processing and onboard storage in a new, bold form factor. Built to withstand the toughest environments, the Bullet Series features a sealed aluminum housing, ensuring cameras stay protected with an IK10 vandal resistance and IP67 waterproof rating.

With powerful long range IR sensors, image resolutions up to 4K and 3X optical zoom, Verkada bullet cameras deliver stunning video quality day or night, even in the most challenging indoor and outdoor environments.

All cameras in the Bullet Series are part of Verkada's line of hybrid cloud cameras and work out-of-the-box without any additional downloads or configurations. With standard features like end-to-end encryption, onboard storage, and advanced motion-based insights, organizations are able to quickly scale their coverage and increase situational awareness across any number of locations.

The Bullet Series' powerful processing delivers advanced computer vision features including Verkada's edge-based People and Vehicle Analytics. Bringing speed and efficiency to investigations, footage is processed directly on the camera, meaning results are nearly instant and always accessible.

## Industry-Leading 10-Year Product Warranty

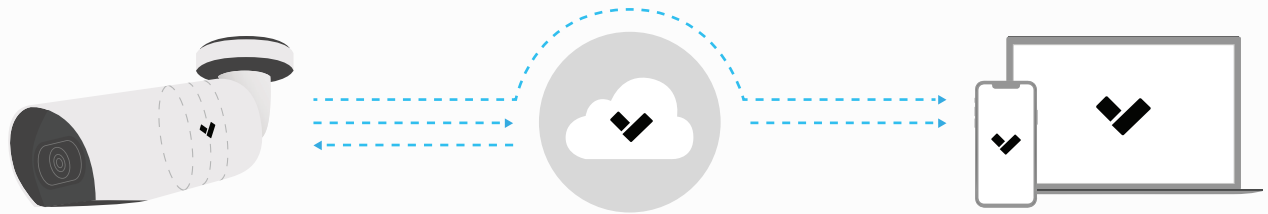
All Verkada hardware purchases are backed by our 10-year limited warranty. For more information, visit [verkada.com/support/terms-of-sale](http://verkada.com/support/terms-of-sale).

## Key Features

- Flexible mounting for any indoor or outdoor environment
- Highly durable with an IK10 rating
- Waterproof IP67-rated aluminum housing with hermetically sealed lens assembly
- High-resolution image quality up to ultra-HD 4K
- Long-range IR illuminators for optimal nighttime visibility
- Edge-based processing for motion, People, and Vehicle Analytics
- Low-bandwidth impact, only using 20-50 kbps per camera at rest
- Up to 365 days of onboard storage



## Verkada's Hybrid Cloud Architecture



### No NVR or DVRS

Industrial-grade solid state storage saves up to 365 days of continuous video

### Easy to Scale

Bandwidth friendly and supports thousands of cameras across unlimited locations

### Centralized Management

Modern platform enables secure access on any device from anywhere in the world

## The reliability of on-camera solid-state storage, with the accessibility of the cloud

### Simple to Install

- No NVRs, DVRs, or servers—just a PoE connection
- Cameras come online and configure in minutes
- No added software or complexities like port forwarding

### Ready For Scale

- Bandwidth-friendly, using 20-50 kbps per camera
- Scale to thousands of cameras across all locations
- No added equipment needed to support additional cameras

### Easy to Use

- Centralized management for seamless access anywhere
- No training required to access footage and features
- Find, download, and share footage from any device

### No Hidden Costs

- Hardware includes an industry-leading 10-year warranty
- Automatic firmware updates keep systems secure
- New features and enhancements are added at no additional costs

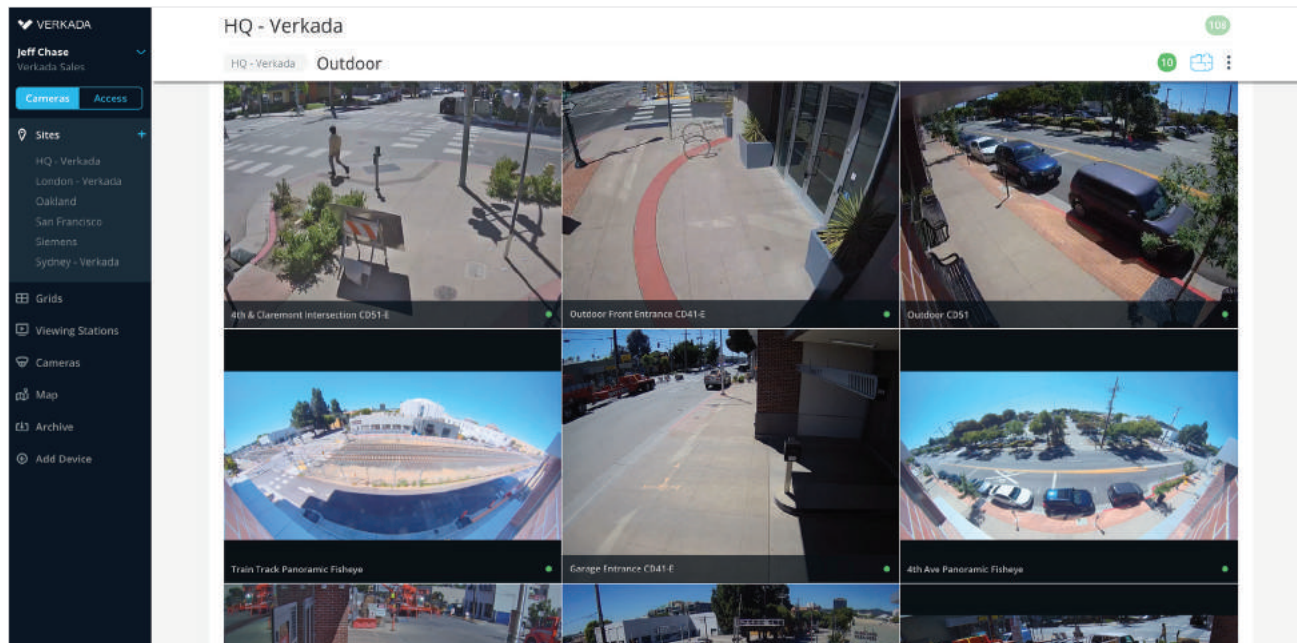
### Advantages of Cloud-Managed Solution

- Secure remote access on any device anywhere
- Real-time alerts if cameras fall offline
- SAML-based integration with single sign-on (SSO) solutions
- Continuous updates with new AI features
- Instantly share live footage via SMS and email
- Live, proactive alerting based on custom triggers



## Command Platform Overview

All-in-one cloud-based management software for Verkada security cameras



Command, Verkada's cloud-based management platform, is designed to deliver simple access and management for all cameras and users across every site from virtually anywhere in the world. From Command, users can set up new cameras, create new sites, manage settings, access live and archived footage, manage users, and access the advanced features powered by Verkada's edge-based analytics.

### Security & Permissions

- SAML/OAuth support for single sign-on
- 2-factor authentication
- User permissions can be controlled at camera, site and organization levels

### Remote Access

- Access from any device (desktops, smartphones, tablets)
- Native apps for iOS and Android, and Verkada's VX51 Viewing Station

### Archiving and Sharing

- Unlimited cloud archiving
- Easily export any footage in a shareable MP4 format
- Create and share Live Links with first responders

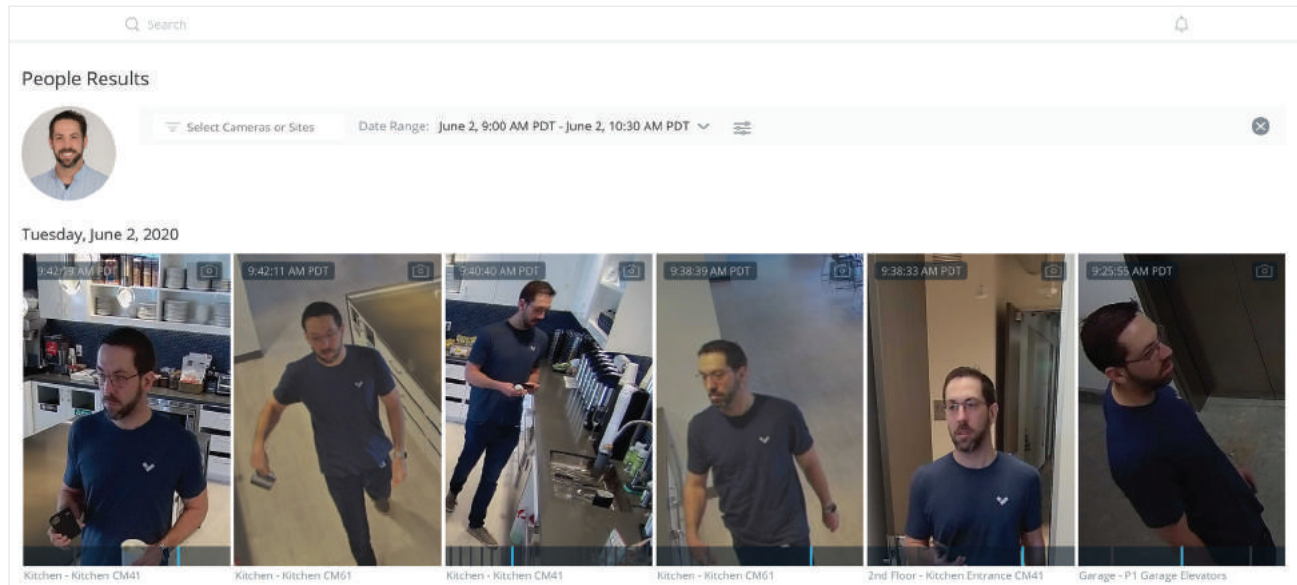
### Powerful Edge-Based Analytics

- Search footage by date, time, and motion
- Access People and Vehicle Analytics to simplify investigations



## People Analytics

Simplify and speed up investigations with intelligent people and face detection



People Analytics combines intelligent edge-based video processing with computer vision in the cloud to give users high-quality images of all individuals identified in the scene. With Verkada's centralized management platform, customers can filter people by various attributes, including date, time, appearance, clothing color, backpack detection, and facial matches.

### Bring Intelligence to Investigations

#### Face Search

- Quickly search for matching people by selecting an existing face from your organization or by uploading an image

#### Person History

- Browse through high-resolution snapshots of people detected in frame
- Save snapshots or easily access associated full-res video
- Search for matched people across your entire organization with cross-camera search.

#### Attribute Filters

- Filter based on a range of attributes, including clothing color, gender appearance, and facial matches.

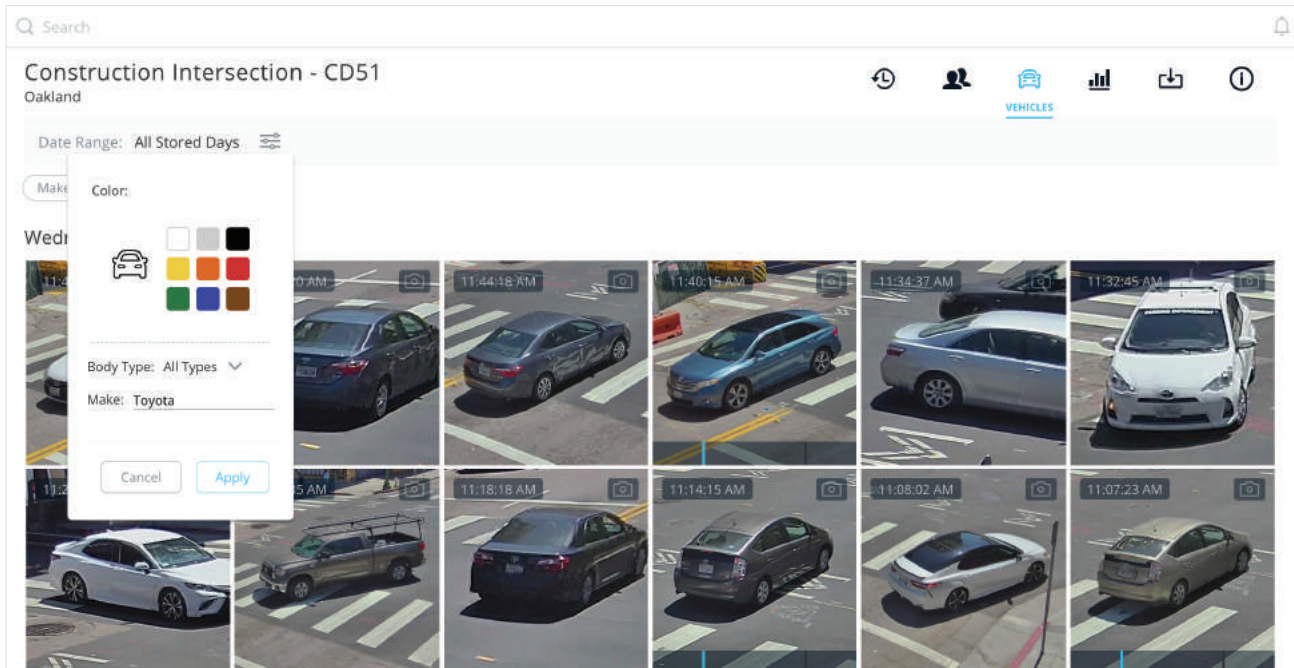
#### Person of Interest Notifications

- Set up proactive SMS/email notifications for alerting when a matching face is detected by a camera
- Create a person of interest by using an uploaded image or an existing face from your organization



## Vehicle Analytics

Quickly search and filter to find vehicles of interest



Vehicle Analytics is a powerful edge-based feature that gives users high-quality images of all vehicles identified in the scene. With Verkada's centralized management platform, customers can filter vehicles by date, time, vehicle make, color, and body type.

### Find and Filter Vehicles with Ease

#### Vehicle History

- Browse through high-resolution snapshots of vehicles detected in frame
- Save snapshots or easily access associated full-res video

#### Vehicle Filters

- Filter based on a range of attributes, including vehicle color, make, and body type.

#### Cross-Camera Tracking

- Easily find similar vehicles of interest across all cameras deployed across all sites
- Create and export playback of multiple angles of a vehicle to quickly provide evidence





## Verkada's Bullet Series Hardware

Tough, durable form factors delivering powerful security anywhere.



### Built Tough

- IK10-rated CNC aluminum housing for unmatched precision and durability
- Waterproof IP67-rated hermetically sealed lens assembly

### High-Capacity Storage

- Enterprise-grade solid-state drives provide up to 365 days of continuous recording
- Wide range of storage options to ensure your organization meets all compliance requirements

### Uncompromised Image Quality

- High image resolution up to ultra-HD 4K
- Up to 3x optical zoom
- Long-range IR sensors for enhanced nighttime viewing
- Built-in shield to protect lens from obstruction

### Powerful Onboard Processing

- The Bullet Series is powered by an Ambarella chipset, enabling super-fast processing of Verkada's edge-based video analytics



Bullet Series		
	 <b>CB51-E</b>	 <b>CB61-E</b>
Image Resolution	5MP (2688 x 1944)	4K (3840 x 2160)
Lens Type	3x Optical Zoom	
Image Sensor	1/2.8" Progressive CMOS	
Focal Length	f=2.8mm-8mm	
Iris	P-Iris	
Aperture	F1.3-F2.4	
Field of View	Horizontal: 41°-95° Vertical: 40°-59° Diagonal: 50°-105°	Horizontal: 42°-95° Vertical: 25°-48° Diagonal: 49°-100°
IR Range	30m / 98ft in low light	
Resistance Rating	IK10, IP67	
Dimensions	Ø: 81 L: 263mm with mountplate	
Operating Specs	Power: 12W (IEEE 802.3af PoE), 20W (IEEE 802.3at PoE) Temperature: -20°C - 50°C (14°F - 122°F), 802.3af / -40°C - 50°C (-40°F - 122°F), 802.3at Humidity: 90%	
Connectivity	10/100Mb RJ-45 Cable Connector for Network/PoE Connection	



## Ordering Information | Bullet Series

Product Name	MP	WDR	Lens	Grade	IR	Onboard Retention	People/ Vehicle Analytics	Cost (MSRP)
CB51-30E-HW	5.0	✓	Zoom	Outdoor	✓	30 Days	✓	\$1,399
CB51-60E-HW	5.0	✓	Zoom	Outdoor	✓	60 Days	✓	\$1,799
CB51-90E-HW	5.0	✓	Zoom	Outdoor	✓	90 Days	✓	\$2,199
CB51-365E-HW	5.0	✓	Zoom	Outdoor	✓	365 Days	✓	\$3,599
CB61-30E-HW	8.0	✓	Zoom	Outdoor	✓	30 Days	✓	\$1,799
CB61-60E-HW	8.0	✓	Zoom	Outdoor	✓	60 Days	✓	\$2,699
CB61-90E-HW	8.0	✓	Zoom	Outdoor	✓	90 Days	✓	\$3,599

## Ordering Information | Cloud License

Product Name	Years	Cost Per Camera (MSRP)
LIC-1Y	1 Year Camera License	\$199
LIC-3Y	3 Year Camera License	\$499
LIC-5Y	5 Year Camera License	\$799
LIC-10Y	10 Year Camera License	\$1,599

## Ordering Information | Viewing Station

Product Name	Description	Cost (MSRP)
VX51	Viewing Station	\$1,999
LIC-VX-1Y	1 Year Viewing Station License	\$499
LIC-VX-3Y	3 Year Viewing Station License	\$1,299
LIC-VX-5Y	5 Year Viewing Station License	\$1,999
LIC-VX-10Y	10 Year Viewing Station License	\$3,999







# Dome Series

Powerful video security built for any environment



**Turn-key Technologies, Inc.**

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## Overview

Verkada's Dome Series delivers enterprise-grade security in a wide range of options for any indoor or outdoor environment, including image resolutions up to ultra-HD 4K. Each dome camera features a rugged, vandal-resistant design, simple installation, and 8x more processing power than the previous generation to unlock edge-based analytics for advanced people and vehicle insights.

All cameras in the Dome Series are part of Verkada's line of hybrid cloud cameras and work out-of-the-box without any additional downloads or configurations. With standard features like end-to-end encryption, onboard storage, and advanced motion-based insights, organizations are able to quickly scale their coverage and increase situational awareness across any number of locations.

The Dome Series' powerful processing delivers advanced computer vision features including Verkada's edge-based People and Vehicle Analytics. With these insights, users can quickly filter people detected based on a variety of attributes, including clothing color, gender traits, and facial matches as well as vehicles by make, model, and color. The footage is all processed directly on the camera, meaning results are nearly instant and always accessible.

## Industry-Leading 10-Year Product Warranty

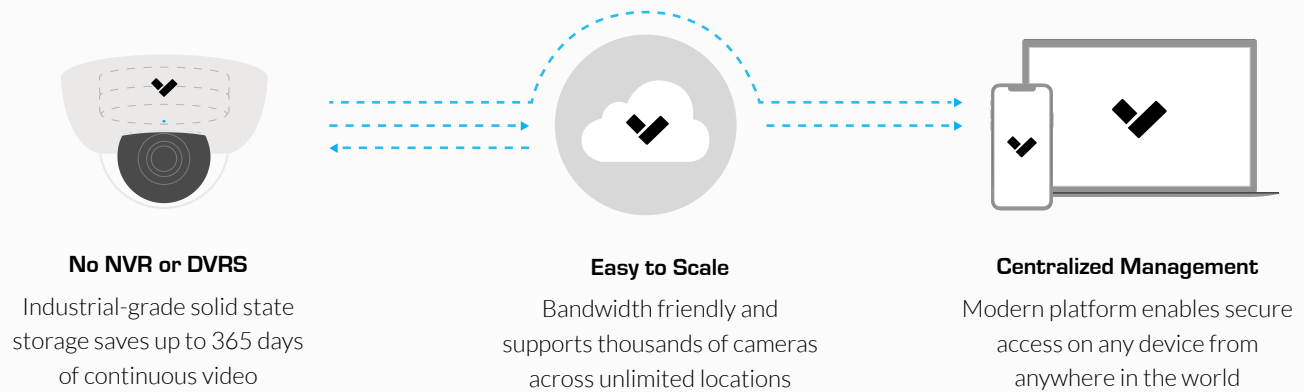
All Verkada hardware purchases are backed by our 10-year limited warranty. For more information, visit [verkada.com/support/terms-of-sale](http://verkada.com/support/terms-of-sale).

## Key Features

- Wide range of models for indoor and outdoor video security
- Highly durable, vandal-resistant form factor
- High-resolution image quality up to ultra-HD 4K
- Indoor models with IK08 rating
- Outdoor models with IP67 and IK10 rating
- Edge-based processing for motion, People, and Vehicle Analytics
- Low-bandwidth impact, only using 20-50 Kbps per camera at rest
- Cameras with up to 365 days of onboard storage



## Verkada's Hybrid Cloud Architecture



### The reliability of on-camera solid-state storage, with the accessibility of the cloud

#### Simple to Install

- No NVRs, DVRs, or servers—just a PoE connection
- Cameras come online and configure in minutes
- No added software or complexities like port forwarding

#### Easy to Use

- Centralized management for seamless access anywhere
- No training required to access footage and features
- Find, download, and share footage from any device

#### Advantages of Cloud-Managed Solution

- Secure remote access on any device anywhere
- Real-time alerts if cameras fall offline
- SAML-based integration with single-sign on (SSO) solutions
- Continuous updates with new AI features
- Instantly share live footage via SMS and email
- Live, proactive alerting based on unusual activity
- People counting and heatmaps to visualize your space

#### Ready For Scale

- Bandwidth-friendly, using 5-20 Kbps per camera
- Scale to thousands of cameras across all locations
- No added equipment needed to support additional cameras

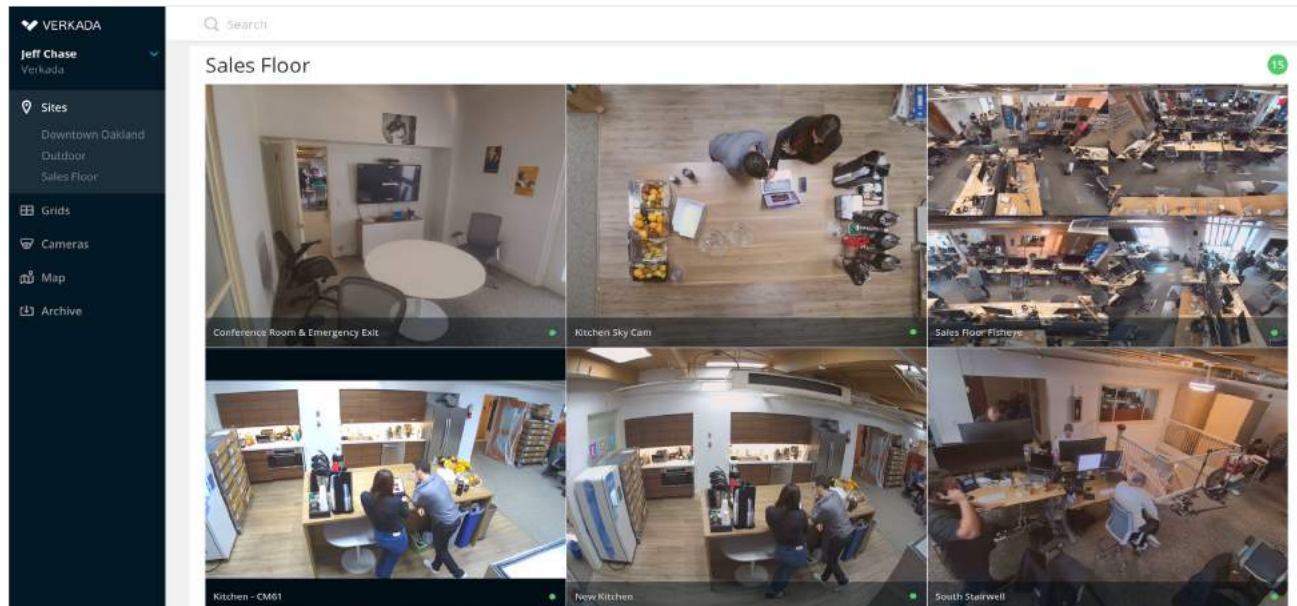
#### No Hidden Costs

- Hardware includes an industry-leading 10-year warranty
- Automatic firmware updates keep systems secure
- New features and enhancements are added at no additional costs



## Command Platform Overview

All-in-one cloud-based management software for Verkada security cameras



Command, Verkada's cloud-based management software, is designed to deliver simple access and management for all cameras and users across all sites from virtually anywhere in the world. From Command, users can set up new cameras, create new sites, manage settings, access live and archived footage, manage users, and access the advanced features powered by Verkada's edge-based analytics.

### User Permissions & Account Security

- SAML/OAuth support for single sign-on
- 2-factor authentication
- User permissions can be controlled at camera, site and organization levels

### Remote Access

- Access from any device (desktops, smartphones, tablets)
- Native apps for iOS and Android, Apple TV, and Verkada's VX51 Viewing Station

### Archiving and Sharing

- Command licenses include unlimited cloud archiving
- Easily export any footage in a shareable MP4 format
- Create and share Live Links with first responders

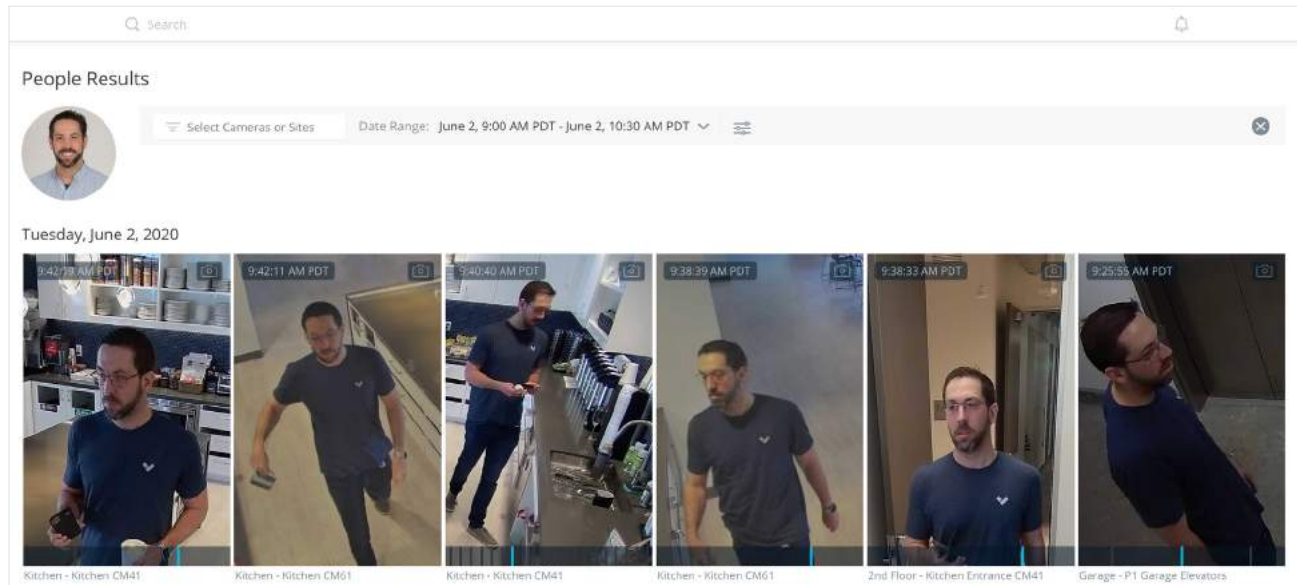
### Powerful Edge-Based Analytics

- Search footage by date, time, and motion
- Access People and Vehicle Analytics to simplify investigations



## Verkada's People Analytics

Simplify and speed up investigations with intelligent people and face detection



Available across Verkada's Dome Series, People Analytics combines intelligent edge-based video processing with computer vision in the cloud to give users high-quality images of all individuals identified in the scene. With Verkada's centralized management platform, customers can filter people by various attributes, including date, time, appearance, clothing color, backpack detection, and facial matches.

### Bring Intelligence to Investigations

#### Face Search

- Quickly search for matching people by selecting an existing face from your organization or by uploading an image

#### Person History

- Browse through high-resolution snapshots of people detected in frame
- Save snapshots or easily access associated full-res video

#### Investigate Anywhere

- People Analytics is available from any device and can be accessed from virtually anywhere in the world

#### Attribute Filters

- Filter based on a range of attributes, including clothing color, gender appearance, and facial matches.

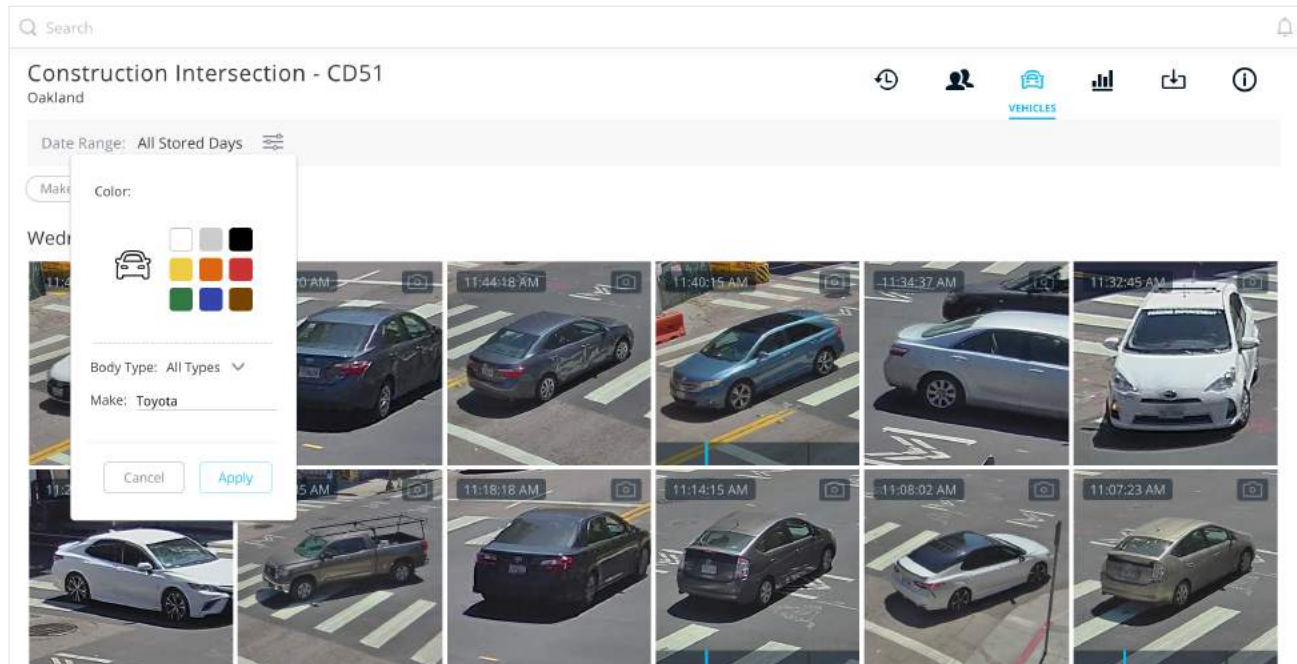
#### Cross-Camera Tracking

- Easily find potential suspects or people of interest across all cameras deployed across all sites
- Create and export playback of multiple angles of a person to quickly provide evidence



## Verkada's Vehicle Analytics

Quickly search and filter to find vehicles of interest



With Verkada's Dome Series, customers have access to Vehicle Analytics — a powerful edge-based feature that gives users high-quality images of all vehicles identified in the scene. With Verkada's centralized management platform, customers can filter vehicles by date, time, vehicle make, color, and body type.

### Find and Filter Vehicles with Ease

#### Vehicle History

- Browse through high-resolution snapshots of vehicles detected in frame
- Save snapshots or easily access associated full-res video

#### Investigate Anywhere

- Vehicle Analytics is available from any device and can be accessed from virtually anywhere in the world

#### Cross-Camera Tracking

- Easily find similar vehicles of interest across all cameras deployed across all sites
- Create and export playback of multiple angles of a vehicle to quickly provide evidence

#### Attribute Filters

- Filter based on a range of attributes, including vehicle color, make, and body type.



## Indoor Dome Series

				
	CD31	CD41	CD51	CD61
Image Resolution	2MP (1920 x 1080)	5MP (2688 x 1944)	5MP (2688 x 1944)	4K (3840 x 2160)
Lens Type	Fixed		3x Optical Zoom	
Image Sensor	1/2.8" Progressive CMOS			
Focal Length	f=2.8mm		f=2.8-8mm	
Iris	Fixed		P-Iris	
Aperture	F1.6		F1.3-F2.4	
Field of View	Horizontal: 97° Vertical: 71° Diagonal: 128°		Horizontal: 38° to 105° Vertical 29° to 77° Diagonal 48° to 126°	Horizontal: 41° to 116° Vertical 23° to 62° Diagonal 47° to 136°
IR Range	15m / 50ft in low light		30m / 98ft in low light	
Resistance Rating	IK08, FCC, IEC60950-1			
Dimensions	With mount plate: Ø: 146mm / 5.75in, H: 104.3mm / 4.11in ; 736g / 25.96oz Without mount plate: Ø: 146mm / 5.75in, H: 99.8mm / 3.93in ; 593g / 20.92oz			
Operating Specs	Power: 11W (IEEE 802.3af PoE) Temperature: -10°C - 50°C (14°F - 122°F) Humidity: 90%			
Connectivity	Ethernet: 10/100Mbps RJ-45 cable connector for Network/PoE connection			





## Outdoor Dome Series

				
	<b>CD31-E</b>	<b>CD41-E</b>	<b>CD51-E</b>	<b>CD61-E</b>
<b>Image Resolution</b>	2MP (1920 x 1080)	5MP (2688 x 1944)	5MP (2688 x 1944)	4K (3840 x 2160)
<b>Lens Type</b>	Fixed		3x Optical Zoom	
<b>Image Sensor</b>	1/2.8" Progressive CMOS			
<b>Focal Length</b>	f=2.8mm		f=2.8-8mm	
<b>Iris</b>	Fixed		P-Iris	
<b>Aperture</b>	F1.6		F1.3-F2.4	
<b>Field of View</b>	Horizontal: 97° Vertical: 71° Diagonal: 128°		Horizontal: 38° to 105° Vertical 29° to 77° Diagonal 48° to 126°	Horizontal: 41° to 116° Vertical 23° to 62° Diagonal 47° to 136°
<b>IR Range</b>	15m / 50ft in low light		30m / 98ft in low light	
<b>Resistance Rating</b>	IK10, IP67, FCC, IEC60950-1			
<b>Dimensions</b>	With mount plate: Ø: 155mm / 6.1in, H: 114.6mm / 4.51in ; 996g / 35.13oz Without mount plate: Ø: 155mm / 6.1in, H: 107.6mm / 4.24in ; 818g / 28.85oz			
<b>Operating Specs</b>	Power: 12W (IEEE 802.3af PoE) ; Extended Temperature Range: 20W (IEEE 802.3at PoE) Temperature: -20°C - 50°C / -4°F - 122°F, PoE 802.3af ; -40°C - 50°C / -40°F - 122°F, PoE 802.3at Humidity: 90%			
<b>Connectivity</b>	Ethernet: 10/100Mbps RJ-45 cable connector for Network/PoE connection			



## Ordering Information | Indoor Dome Series

Product Name	MP	WDR	Lens	IR	Onboard Retention	People/Vehicle Analytics	Cost (MSRP)
CD31-15-HW	2.0	✓	Fixed	15m	15 Days	✓	\$599
CD41-30-HW	5.0	✓	Fixed	15m	30 Days	✓	\$799
CD41-60-HW	5.0	✓	Fixed	15m	60 Days	✓	\$1,199
CD41-90-HW	5.0	✓	Fixed	15m	90 Days	✓	\$1,599
CD41-120-HW	5.0	✓	Fixed	15m	120 Days	✓	\$1,999
CD41-365-HW	5.0	✓	Fixed	15m	365 Days	✓	\$2,999
CD51-30-HW	5.0	✓	Zoom	30m	30 Days	✓	\$999
CD51-60-HW	5.0	✓	Zoom	30m	60 Days	✓	\$1,399
CD51-90-HW	5.0	✓	Zoom	30m	90 Days	✓	\$1,799
CD51-120-HW	5.0	✓	Zoom	30m	120 Days	✓	\$2,199
CD51-365-HW	5.0	✓	Zoom	30m	365 Days	✓	\$3,199
CD61-30-HW	8.0	✓	Zoom	30m	30 Days	✓	\$1,399
CD61-60-HW	8.0	✓	Zoom	30m	60 Days	✓	\$2,299
CD61-90-HW	8.0	✓	Zoom	30m	90 Days	✓	\$3,199



## Ordering Information | Outdoor Dome Series

Product Name	MP	WDR	Lens	IR	Onboard Retention	People/Vehicle Analytics	Cost (MSRP)
CD31-15E-HW	2.0	✓	Fixed	15m	15 Days	✓	\$799
CD41-30E-HW	5.0	✓	Fixed	15m	30 Days	✓	\$999
CD41-60E-HW	5.0	✓	Fixed	15m	60 Days	✓	\$1,399
CD41-90E-HW	5.0	✓	Fixed	15m	90 Days	✓	\$1,799
CD41-120E-HW	5.0	✓	Fixed	15m	120 Days	✓	\$2,199
CD41-365E-HW	5.0	✓	Fixed	15m	365 Days	✓	\$3,199
CD51-30E-HW	5.0	✓	Zoom	30m	30 Days	✓	\$1,199
CD51-60E-HW	5.0	✓	Zoom	30m	60 Days	✓	\$1,599
CD51-90E-HW	5.0	✓	Zoom	30m	90 Days	✓	\$1,999
CD51-120E-HW	5.0	✓	Zoom	30m	120 Days	✓	\$2,399
CD51-365E-HW	5.0	✓	Zoom	30m	365 Days	✓	\$3,399
CD61-30E-HW	8.0	✓	Zoom	30m	30 Days	✓	\$1,599
CD61-60E-HW	8.0	✓	Zoom	30m	60 Days	✓	\$2,499
CD61-90E-HW	8.0	✓	Zoom	30m	90 Days	✓	\$3,399



## Ordering Information | Cloud License

Product Name	Years	Cost Per Camera (MSRP)
LIC-1Y	1 Year Camera License	\$199
LIC-3Y	3 Year Camera License	\$499
LIC-5Y	5 Year Camera License	\$799
LIC-10Y	10 Year Camera License	\$1,599

## Ordering Information | Accessories

Product Name	Description	Cost (MSRP)
ACC-MNT-2	Mounting arm kit for pendant cap (ACC-MNT-8)	\$89
ACC-MNT-3	Wall mounted L-shaped bracket kit	\$129
ACC-MNT-4	Pole mount adapter kit for ACC-MNT-2 and 3	\$199
ACC-MNT-7	Angle mount kit	\$149
ACC-MNT-8	Pendant cap mount kit	\$69
INJ-POE-PLUS	Verkada PoE Plus (802.3at) Injector, GigE	\$129

## Ordering Information | Viewing Station

Product Name	Description	Cost (MSRP)
VX51	Viewing station	\$1,999
LIC-VX-1Y	1 Year Viewing Station License	\$499
LIC-VX-3Y	3 Year Viewing Station License	\$1,299
LIC-VX-5Y	5 Year Viewing Station License	\$1,999
LIC-VX-10Y	10 Year Viewing Station License	\$3,999

For more information and to learn about a free 30-day trial, contact [sales@verkada.com](mailto:sales@verkada.com).





# Fisheye Series

Panoramic views for seamless, 180° coverage in any environment.



**TURN-KEY  
TECHNOLOGIES**

**Turn-key Technologies, Inc.**

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Sayreville, NJ 08872

732-553-9100

[www.turn-keytechnologies.com](http://www.turn-keytechnologies.com)

## Overview

Verkada's fisheye captures footage in a dynamic panoramic 180°, with options for wide-viewing angles or breaking down any captured environment into quadrants. Capable of being mounted inside or outside, this camera is suitable for any number of surveillance needs.

The D80 is part of Verkada's line of hybrid cloud cameras and are ready out of the box for easy installation without any additional downloads or configurations. With standard features like end-to-end encryption, onboard storage, and advanced motion-based insights, organizations are able to quickly scale their coverage and increase situational awareness across any number of locations.

### Industry-Leading 10-Year Product Warranty

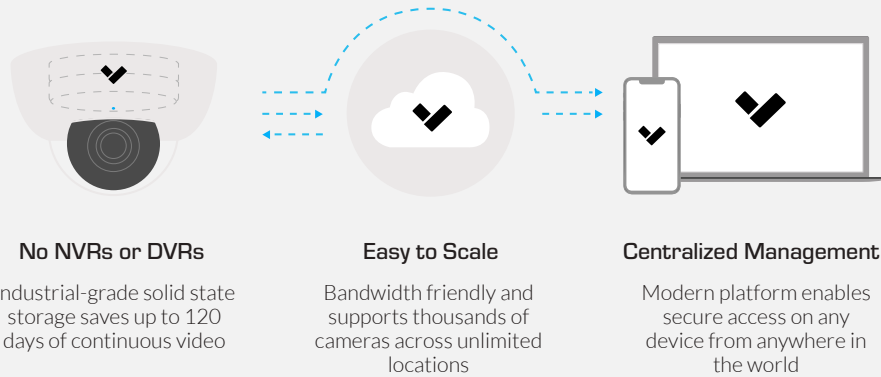
All Verkada hardware purchases are backed by our 10-year limited warranty. For more information, visit [verkada.com/support/terms-of-sale](http://verkada.com/support/terms-of-sale).

## Key Features

- 180° of panoramic views from all angles
- High-resolution image quality with 12MP
- Up to 90 days of onboard video retention
- Can be mounted indoors and outdoors, with IK10 and IP66 ratings
- Low-bandwidth impact, only using 5-20 Kbps per camera at rest



## Verkada's Hybrid Cloud Architecture



### The reliability of on-camera solid-state storage, with the accessibility of the cloud

#### Simple to Install

- No NVRs, DVRs, or servers—just a PoE connection
- Cameras come online and configure in minutes
- No added software or complexities like port forwarding

#### Easy to Use

- Centralized management for seamless access anywhere
- No training required to access footage and features
- Find, download, and share footage from any device

#### Advantages of Cloud-Managed Solution

- Secure remote access on any device anywhere
- Real-time alerts if cameras fall offline
- SAML-based integration with single-sign on (SSO) solutions
- Continuous updates with new AI features
- Instantly share live footage via SMS and email
- Live, proactive alerting based on unusual activity
- People counting and heatmaps to visualize your space

#### Ready For Scale

- Bandwidth-friendly, using 5-20 Kbps per camera
- Scale to thousands of cameras across all locations
- No added equipment needed to support additional cameras

#### No Hidden Costs

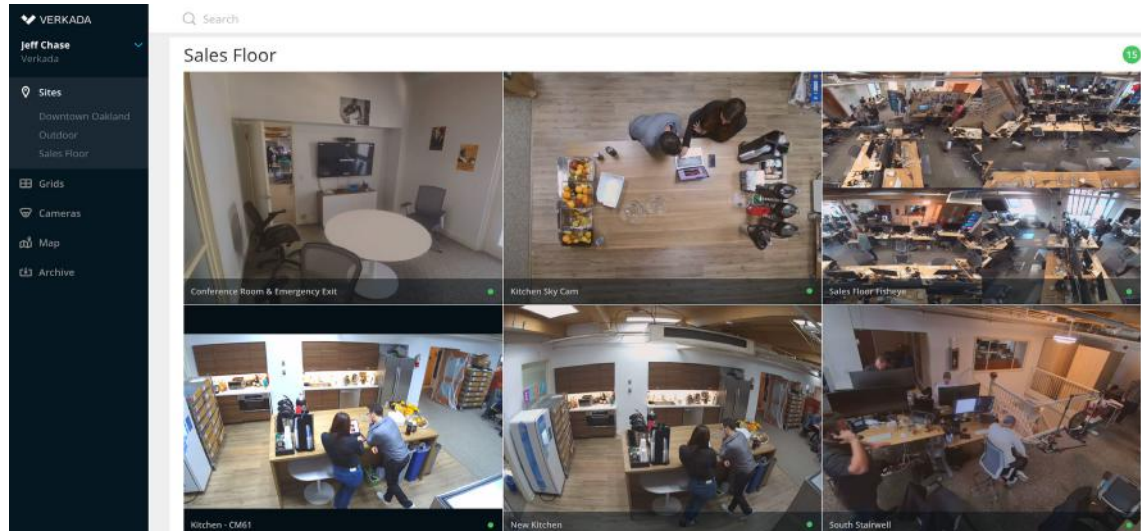
- Hardware includes an industry-leading 10-year warranty
- Automatic firmware updates keep systems secure
- New features and enhancements are added at no additional costs





# Command Platform Overview

All-in-one cloud-based management software for Verkada security cameras



Command, Verkada's cloud-based management software, is designed to deliver simple access and management for all cameras and users across all sites from virtually anywhere in the world. From Command, users can set up new cameras, create new sites, manage settings, access live and archived footage, manage users, and access the advanced features powered by Verkada's edge-based analytics.

## Remote Access

- Access from any device (desktops, smartphones, tablets)
- Native apps for iOS and Android, Apple TV, and Verkada's VX51 Viewing Station

## User Permissions & Account Security

- SAML/OAuth support for single sign-on
- 2-factor authentication
- User permissions can be controlled at camera, site and organization levels

## Powerful Edge-Based Analytics

- Search footage by date, time, and motion

## Archiving and Sharing

- Command licenses include unlimited cloud archiving
- Easily export any footage in a shareable MP4 format
- Create and share Live Links with first responders

## Key Features

- View and manage video from any device (desktop, smartphone, tablet)
- No 3rd party plugins, thick clients, or downloads required
- Encryption in transit and at rest
- No port-forwarding or VPNs
- Detailed user access and audit logs
- Live Link sharing
- Unlimited cloud archiving with footage exports in MP4 format
- Alerts for offline cameras, tampering, and motion detection



## Fisheye Series



## D80

## Image Resolution

12MP (4000 x 3000)

## Lens Type

Fixed

## Image Sensor

1/1.7" Progressive CMOS

## Focal Length

f=1.29mm

## Iris

Fixed

## Aperture

F2.2

## Field of View

Horizontal: 180°  
Vertical 180°  
Diagonal 180°

## IR Range

20m / 65ft in low light

## Resistance Rating

IK10, IP66, FCC, ICES, IEC62368

## Dimensions

## With Plate

Ø: 155mm x 74.5mm / 6.1 x 2.84 inches

## Without Plate

Ø: 155mm x 68mm / 6.1 x 2.67 inches

## Operating Specs

## 802.3af PoE

Power: 13W

Temperature: -20°C - 50°C (-4°F - 122°F)

Humidity: 90%

## 802.3at PoE+

Power: 24W

Temperature: -40°C - 50°C (-40°F - 122°F)

Humidity: 90%

## Connectivity

1Gbps RJ-45 Cable Connector for Network/PoE Connection



## Ordering Information | Dome Series

Product Name	MP	WDR	Lens	Type	IR	Onboard Retention	People/Vehicle Analytics	Price (MSRP)
D80-HW	12MP	✓	Fixed	Outdoor	20m	30 Days	No	\$1,899
D80-60DAY-HW	12MP	✓	Fixed	Outdoor	20m	60 Days	No	\$2,599
D80-90DAY-HW	12MP	✓	Fixed	Outdoor	20m	90 Days	No	\$3,299

## Ordering Information | Cloud License

Product Name	Years	Price Per Camera (MSRP)
LIC-1Y	1-year camera cloud license	\$199
LIC-3Y	3-year camera cloud license	\$499
LIC-5Y	5-year camera cloud license	\$799
LIC-10Y	10-year camera cloud license	\$1,599

## Ordering Information | Accessories

Product Name	Description	Cost (MSRP)
ACC-MNT-2	Mounting arm kit for pendant cap (ACC-MNT-8)	\$89
ACC-MNT-3	Wall mounted L-shaped bracket kit	\$129
ACC-MNT-4	Pole mount adapter kit for ACC-MNT-2 and 3	\$199
ACC-MNT-7	Angle mount kit	\$149
ACC-MNT-8	Pendant cap mount kit	\$69



# Ordering Information | Viewing Station

Product Name	Description	Cost (MSRP)
VX51	Viewing station hardware	\$1,999
VX51-LIC-1Y	1-year VX51 cloud license	\$499
VX51-LIC-3Y	3-year VX51 cloud license	\$1,299
VX51-LIC-5Y	5-year VX51 cloud license	\$1,999
VX51-LIC-10Y	10-year VX51 cloud license	\$3,999

For more information and to learn about a free 30-day trial, contact [sales@verkada.com](mailto:sales@verkada.com).

# H5A Camera Line

2 MP

4 MP

5 MP

6 MP

8 MP



## Features



### NEXT-GENERATION VIDEO ANALYTICS

Expanded object classifications and more accurate detection in crowded scenes so you can detect and act faster.



### MADE IN NORTH AMERICA AND 5 YEAR WARRANTY

Manufactured in North America\* using globally-sourced materials and North American expertise, Avigilon stands behind the quality of its products. Backed by a 5 year warranty.



### H.265 WITH HDSM SMARTCODEC™ TECHNOLOGY

Optimizes compression levels for regions in a scene to help maximize bandwidth savings, helping to keep internet connectivity costs down.



### FOCUS OF ATTENTION WITH ACC™ 7

Leverages AI and video analytics technologies to determine what information is important and should be presented to security operators.



### TRUE WIDE DYNAMIC RANGE

Available in all resolutions, capture details in scenes with both very bright and dark areas.



### LIGHTCATCHER™ TECHNOLOGY

Offers exceptional detail in areas with low lighting.



### ONVIF® COMPLIANT

Built on an open platform to allow integration with other security solutions.



### MULTIPLE LENS OPTIONS

Choose from various lens types, including long zoom, for flexible coverage options.

# Specifications

IMAGE PERFORMANCE			2.0 MP	4.0 MP	5.0 MP	6.0 MP	8.0 MP (4K ULTRA HD)	
	Image Sensor		1/2.8" progressive scan CMOS			1/1.8" progressive scan CMOS		
	Max Resolution (H x V) and Aspect Ratio		(16:9) 1920 x 1080	(16:9) 2560 x 1440 (4:3) 2304 x 1728	(4:3) 2592 x 1944 (16:9) 2560 x 1440	(16:9) 3200 x 1800 (3:2) 3072 x 2048	(16:9) 3840 x 2160	
	Dynamic Range	WDR Off	83 dB	83 dB	83 dB	85 dB	85 dB	
		WDR On	126 dB (dual exposure, 30 fps) 132 dB (triple exposure, 20 fps or less)	126 dB	126 dB	120 dB	120 dB	
	Max Image Rate		(50 Hz/60 Hz): 25 fps/30 fps	WDR off (50 Hz/60 Hz): 25 fps/30 fps WDR on (50 Hz/60 Hz): 20 fps/20 fps			50 Hz/60 Hz: 25 fps/30 fps	
	Bandwidth Management		HDSM SmartCodec technology; Idle scene mode					
	3D Noise Reduction Filter		Yes					

LENS AND IR ILLUMINATION			3.3 – 9 mm	4.9 – 8 mm	9 – 22 mm	4.7 – 84.6 mm
	IR Illumination Max Distance <sup>1</sup> (high power 850 nm LEDs)	Dome	35 m (115 ft), full tele 15 m (49 ft), full wide	30 m (98 ft), full tele 15 m (49 ft), full wide	N/A	N/A
		Bullet	50 m (164 ft), full tele 30 m (98 ft), full wide	50 m (164 ft), full tele 30 m (98 ft), full wide	90 m (295 ft), full tele 60 m (197 ft), full wide	N/A
	Minimum Illumination	2 MP	0.027 lux in color mode, 0.014 lux in monochrome mode, 0 lux with IR	N/A	0.052 lux in color mode, 0.026 lux in monochrome mode, 0 lux with IR	0.039 lux in color mode, 0.02 lux in monochrome mode,
		4 MP	0.03 lux in color mode, 0.015 lux in monochrome mode, 0 lux with IR	N/A	0.058 lux in color mode, 0.029 lux in monochrome mode, 0 lux with IR	N/A
		5 MP	N/A	N/A	0.058 lux in color mode, 0.029 lux in monochrome mode, 0 lux with IR	N/A
		6 MP	N/A	0.055 lux in color mode, 0.028 lux in monochrome mode, 0 lux with IR	N/A	N/A
		8 MP	N/A	0.055 lux in color mode, 0.028 lux in monochrome mode, 0 lux with IR	N/A	N/A
		Horizontal Angle of View Based on Aspect Ratio	2 MP	(16:9) 34° – 99°	N/A	(16:9) 14° – 31°
	4 MP		(16:9)(4:3) 34° – 92°	N/A	(16:9)(4:3) 14° – 31° (4:3) 11° – 24°	N/A
	5 MP		N/A	N/A	(16:9)(4:3) 14° – 31°	N/A
	6 MP		N/A	(16:9) 52° – 92° (3:2) 41° – 73°	N/A	N/A
	8 MP		N/A	(16:9) 52° – 92°	N/A	N/A
	Vertical Angle of View Based on Aspect Ratio	2 MP	(16:9) 18° – 53°	N/A	(16:9) 7.8° – 16.7°	(16:9) 2.3° – 34°
		4 MP	(16:9) 18° – 50° (4:3) 25° – 68°	N/A	(16:9) 8.2° – 17.4°	N/A
		5 MP	N/A	N/A	(16:9) 8.1° – 17.4° (4:3) 11° – 23°	N/A
		6 MP	N/A	(16:9) 29° – 51° (3:2) 27° – 48°	N/A	N/A
8 MP		N/A	(16:9) 29° – 51°	N/A	N/A	
Max Aperture		F1.3	F1.8	F1.6	F1.6	
Control		P-Iris, Remote Focus and Zoom				

<sup>1</sup> IR illumination power may be reduced at higher operating temperatures.

IMAGE CONTROL	Image Compression Method	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG
	Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG; HDSM 2.0 on 4.0 MP, 5.0 MP, 6.0 MP, and 4K (8.0 MP) cameras
	Motion Detection	Pixel motion: Selectable sensitivity and threshold. Classified object detection
	Camera Tamper Detection	Yes
	Electronic Shutter Control	Automatic, Manual (1/7 to 1/8196 sec)
	Iris Control	Automatic, Open, Closed
	Day/Night Control	Automatic, Manual
	Flicker Control	60 Hz, 50 Hz
	White Balance	Automatic, Manual
	Backlight Compensation	Adjustable
	Privacy Zones	Up to 64 zones

NETWORK	Network	100BASE-TX, RJ45 Connector, CAT5e Cabling
	ONVIF	ONVIF compliance version 1.02, 2.00, Profile S, Profile T ( <a href="http://www.onvif.org">www.onvif.org</a> )
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication
	Protocols	IPv6, 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

PERIPHERALS	USB Port	USB 2.0
	Onboard Storage	Dome
		Bullet and Box



# Specifications (Con't)

<b>AUXILIARY I/O</b>	Audio Compression Method	G.711 PCM 8 kHz
	Audio Input/Output	Line level input and output
	External I/O Terminals	Alarm In, Alarm Out
	RS-485 Terminal	Yes, Box camera only

<b>MECHANICAL (DOME)</b>		<b>INDOOR SURFACE MOUNT</b>	<b>INDOOR IN-CEILING MOUNT</b>	<b>OUTDOOR SURFACE MOUNT</b>
	Dimensions (LxWxH)	163 mm x 163 mm x 118 mm; 6.4" x 6.4" x 4.7"	181 mm x 181 mm x 164 mm; 7.1" x 7.1" x 6.5"	163 mm x 163 mm x 121 mm; 6.4" x 6.4" x 4.8"
	Weight	0.99 kg (2.18 lbs)	1.64 kg (3.62 lbs)	1.39 kg (3.06 lbs)
	Dome Bubble	Polycarbonate		
	Body	Plastic, Aluminum		
	Housing	Surface mount, tamper resistant	Recessed mount, tamper resistant	Surface mount, vandal resistant
	Finish	Plastic, gray	Plastic, gray; Aluminum, powder coat, black	Powder coat, RAL 9003
	Adjustment Range	360° pan, ±180° azimuth, 9° – 95° tilt (30° – 95° with -IR option)		

<b>MECHANICAL (PENDANT DOME)</b>		<b>PENDANT CAMERA ONLY</b>	<b>WITH WALL MOUNT (H4A-MT-WALL1)</b>	<b>WITH NPT MOUNT (H4A-MT-NPTA1)</b>
	Dimensions (LxWxH)	172 mm x 172 mm x 124 mm; 6.8" x 6.8" x 4.9"	275 mm x 172 mm x 152.1 mm; 10.8" x 6.8" x 6.0"	172 mm x 172 mm x 172.3 mm; 6.8" x 6.8" x 6.8"
	Weight	1.59 kg (3.51 lbs)	3.04 kg (6.70 lbs)	1.84 kg (4.06 lbs)
	Dome Bubble	Polycarbonate		
	Body	Aluminum		
	Housing	Pendant mount, vandal resistant		
	Finish	Powder coat, RAL 9003		
	Adjustment Range	360° pan, ±180° azimuth, 9° – 95° tilt (30° – 95° with -IR option)		

<b>MECHANICAL (BULLET)</b>	Dimensions (LxWxH)	280 mm x 126 mm x 91 mm; 11.04" x 4.97" x 3.58" (including mounting bracket)	
	Weight	Camera	1.71 kg (3.77 lbs)
		Mounting Bracket	0.21 kg (0.46 lbs)
	Body	Aluminum	
	Housing	Surface mount, tamper resistant	
	Finish	Powder coat, RAL 9003	
	Adjustment Range	±175° pan, ±90° tilt, ±175° azimuth	

<b>MECHANICAL (BOX)</b>	Dimensions (LxWxH)	168 mm x 76 mm x 67 mm; 6.6" x 3.0" x 2.6"
	Weight	0.62 kg (1.4 lbs)
	Body	Aluminum
	Camera Mount	1/4"-20 UNC (top and bottom)
	Finish	Powder coat, black

<b>ELECTRICAL</b>	Power Consumption	Bullet	13 W max	
		Dome	13 W max (11 W with no IR or IR disabled)	
		Box	7 W max	
	Power Source	Bullet	VDC: 12 V ± 10%, 13 W min	VAC: 24 V ± 10%, 15 VA min
		Dome	VDC: 12 V ± 10%, 12 W min	VAC: 24 V ± 10%, 13 VA min
		Box	VDC: 12 V ± 10%, 7 W min	VAC: 24 V ± 10%, 9 VA min
	RTC Backup Battery		3V manganese lithium	

<b>ENVIRONMENTAL</b>	Operating Temperature	Bullet	-40 °C to +60 °C (-40 °F to 140 °F), in enclosed space
		Dome	-40 °C to +65 °C (-40 °F to 149 °F), with ambient convection
		Box	-10 °C to +60 °C (-14 °F to 140 °F)
	IR Illuminator Behavior	Bullet	IR illuminator will turn off if the temperature is 61 °C (141 °F) or higher. The illuminator will operate at 50% power if the temperature is between 55 °C (131 °F) and 61 °C (141 °F). Hysteresis: 5 °C (9 °F).
		Indoor Dome	IR illuminator will turn off if the temperature is 55 °C (131 °F) or higher. The illuminator will operate at 50% power if the temperature is between 44 °C (111 °F) and 55 °C (131 °F). Hysteresis: 2 °C (3.6 °F).
		Outdoor Dome	IR illuminator will turn off if the temperature is 57 °C (135 °F) or higher. The illuminator will operate at 50% power if the temperature is between 49 °C (120 °F) and 57 °C (135 °F). Hysteresis: 2 °C (3.6 °F).
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)	
	Humidity	0 - 95% non-condensing	

<b>CERTIFICATIONS</b>	Certifications/Directives		UL, cUL, CE, ROHS, Reach (SVHC), RCM
	Safety		UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC 62471 (with -IR option)
	Environmental	Bullet	UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating, IEC 62262 IK10 Impact Rating
		Outdoor Dome	UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating, IEC 62262 IK10 Impact Rating
	Electromagnetic Emissions		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
	Electromagnetic Immunity		EN 55024, EN 61000-6-1

# Analytics Specifications

## SUPPORTED ANALYTICS EVENTS

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.
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.
Tamper Detection	The event is triggered when the scene unexpectedly changes.

## SUPPORTED CLASSIFIED OBJECT TYPES

Object Types in Outdoor Mode	Vehicle, sub-types: Car, Truck, Bicycle, Motorcycle, Bus Person
Object Types in Indoor Mode	Person

## TEACH BY EXAMPLE

Teach By Example	Yes, when used with Avigilon Control Center™
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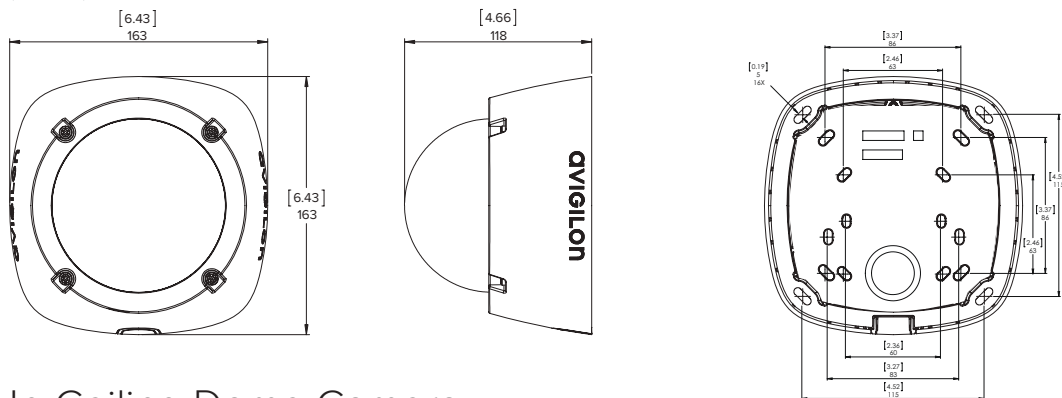
## AVIGILON CONTROL CENTER (ACC) VERSIONS SUPPORTED FEATURES

ACC Version 6.14.12 or higher	All supported analytic events with two types of classified objects: person or vehicle. Appearance search when paired with appropriate server hardware. H.265 supported.
ACC Version 7.2 or higher	All supported analytic events with people and vehicles and all vehicle sub-types as classified objects. Appearance search when paired with appropriate server hardware. H.265 supported.

# Outline Dimensions

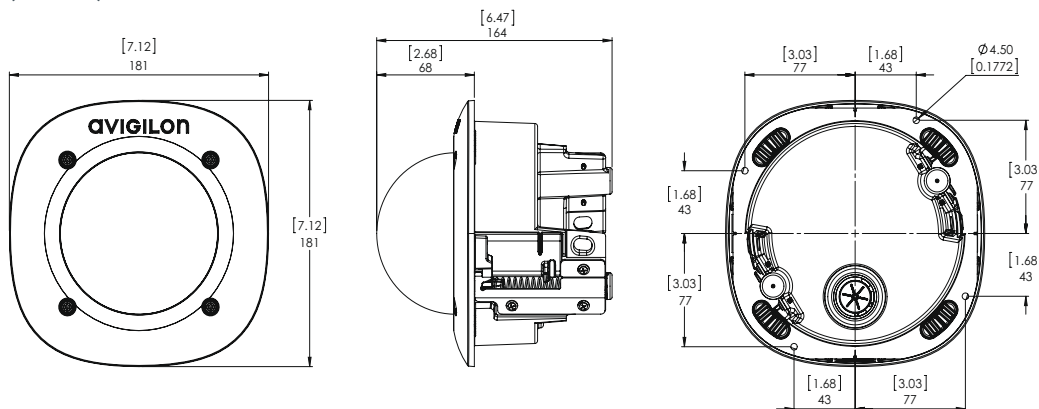
## Surface Mount Indoor Dome Camera

(H5A-D)



## In-Ceiling Dome Camera

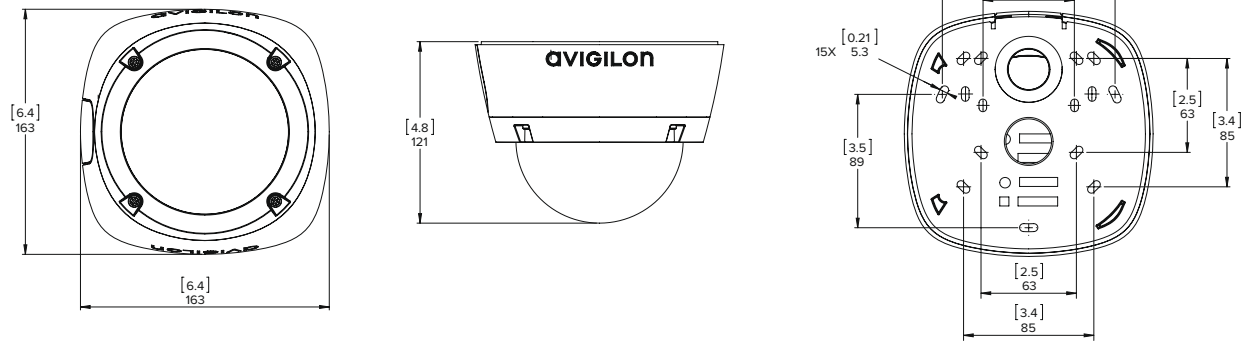
(H5A-DC)



# Outline Dimensions (Con't)

## Surface Mount Outdoor Dome Camera

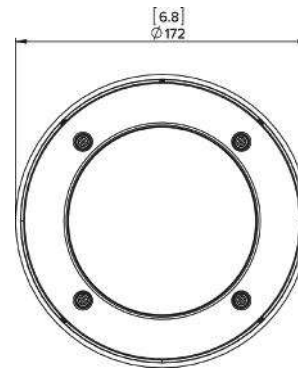
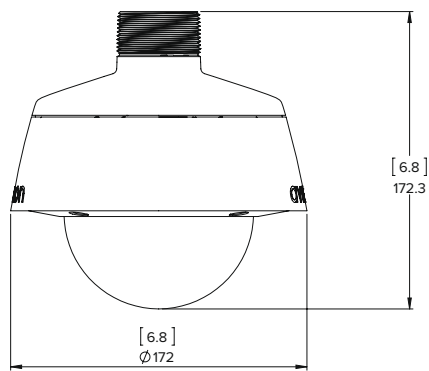
(H5A-DO)



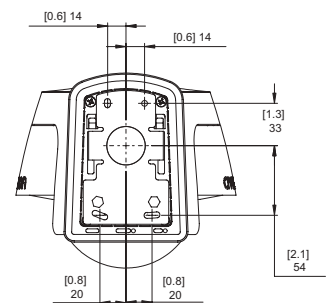
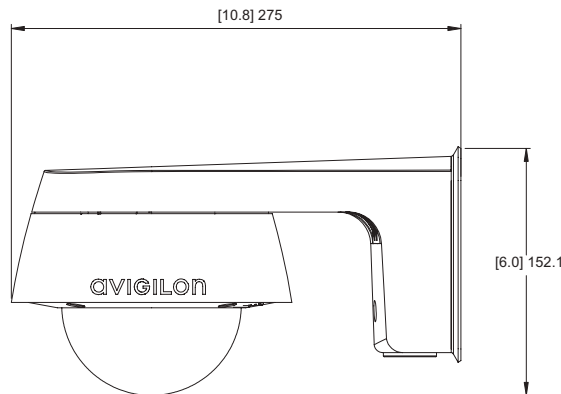
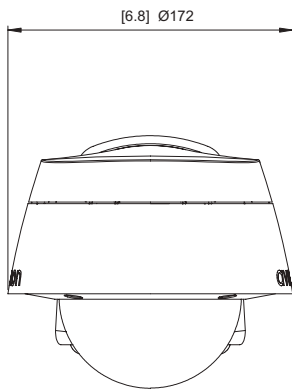
## Pendant Dome Camera

(H5A-DP)

WITH NPT MOUNT  
(H4A-MT-NPTA1)

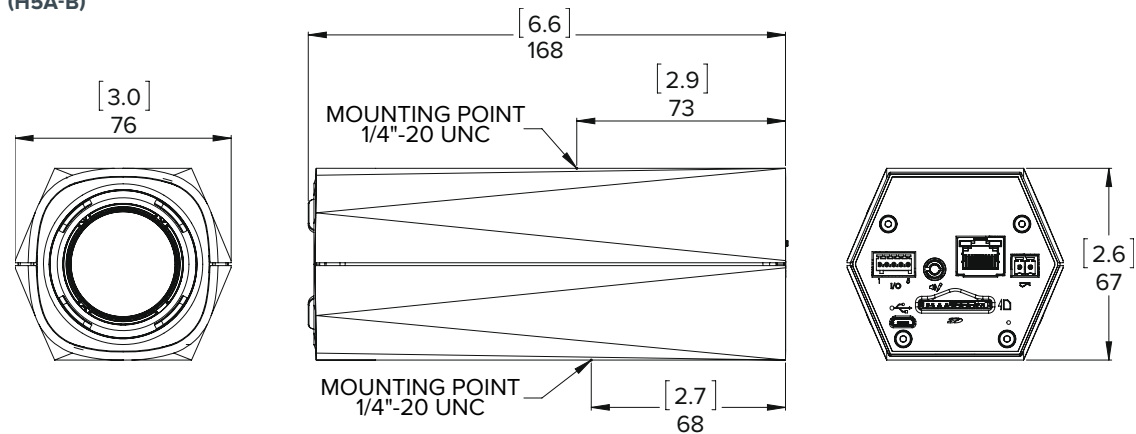


WITH WALL MOUNT  
(H4A-MT-WALL1)



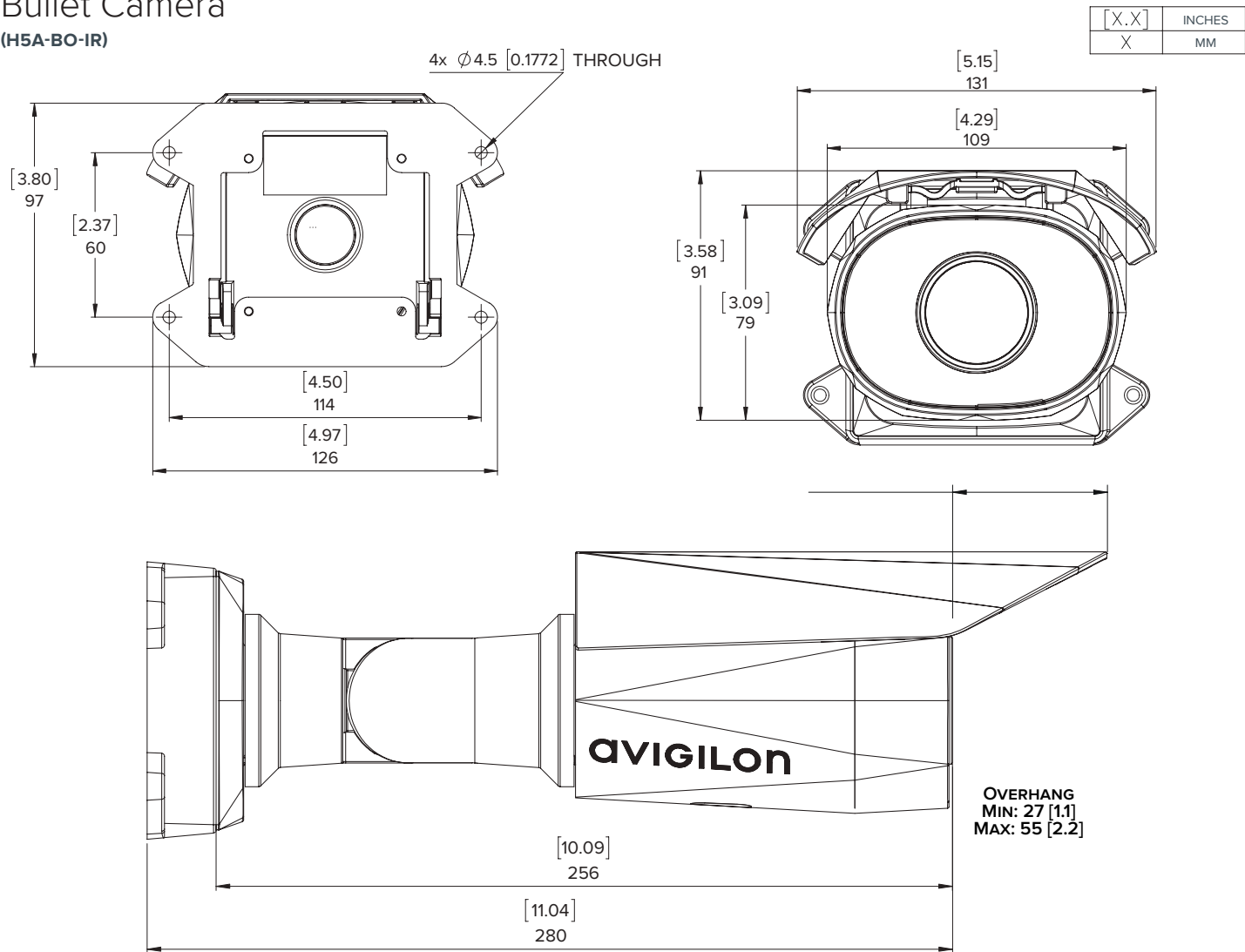
## Box Camera

(H5A-B)

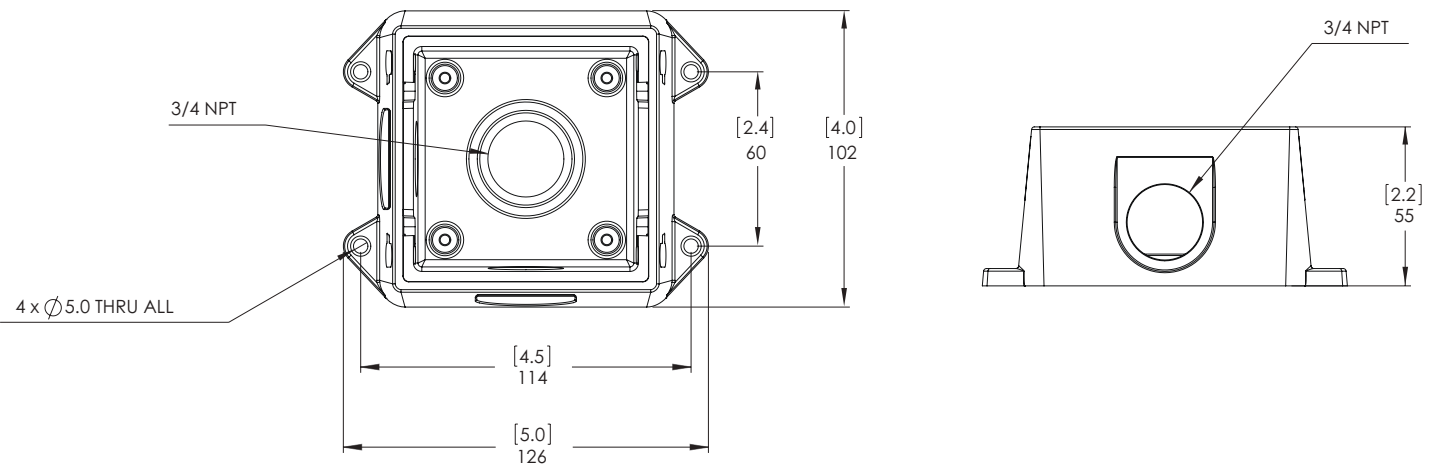


# Outline Dimensions (Con't)

## Bullet Camera (H5A-BO-IR)



## HD Bullet Camera Junction Box (H4-BO-JBOX1)



# Ordering Information (Outdoor Dome and Bullet)

## Surface Mount Outdoor Dome Camera

(H5A-DO)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-DO1	2.0	✓	✓	3.3 - 9 mm		✓	✓
2.0C-H5A-DO1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-DO2	2.0	✓	✓	9 - 22 mm		✓	✓
4.0C-H5A-DO1	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-DO1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-DO2	4.0	✓	✓	9 - 22 mm		✓	✓
5.0C-H5A-DO2	5.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-DO1	6.0	✓	✓	4.9 - 8 mm		✓	✓
6.0C-H5A-DO1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-DO1	8.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-DO1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4A-DO-SMOK1	Outdoor dome camera cover with smoked bubble						
H4A-DO-CLER1	Outdoor dome camera cover with clear bubble						
H4A-AC-GROM1	Camera sealing grommet, pack of 10						
CM-AC-GROM1	Pipe grommet, pack of 10						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						

## Pendant Mount Outdoor Dome Camera

(H5A-DP)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-DP1	2.0	✓	✓	3.3 - 9 mm		✓	✓
2.0C-H5A-DP1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-DP2	2.0	✓	✓	9 - 22 mm		✓	✓
4.0C-H5A-DP1	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-DP1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-DP2	4.0	✓	✓	9 - 22 mm		✓	✓
5.0C-H5A-DP2	5.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-DP1	6.0	✓	✓	4.9 - 8 mm		✓	✓
6.0C-H5A-DP1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-DP1	8.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-DP1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4A-DP-SMOK1	Pendant dome camera cover with smoked bubble						
H4A-DP-CLER1	Pendant dome camera cover with clear bubble						
H4A-MT-WALL1	Indoor/outdoor pendant wall arm mount						
H4A-MT-NPTA1	Indoor/outdoor pendant NPT mount						
H4-MT-POLE1	Aluminum pole mounting bracket for pendant dome cameras						
H4-MT-CRNR1	Aluminum corner mounting bracket for pendant dome cameras						
CM-AC-GROM1	Pipe grommet, pack of 10						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						

## Outdoor Bullet Camera

(H5A-BO-IR)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-BO1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-BO2-IR	2.0	✓	✓	9 - 22 mm	✓	✓	✓
4.0C-H5A-BO1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-BO2-IR	4.0	✓	✓	9 - 22 mm	✓	✓	✓
5.0C-H5A-BO2-IR	5.0	✓	✓	9 - 22 mm	✓	✓	✓
6.0C-H5A-BO1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-BO1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4-BO-JBOX1	Junction box for bullet cameras						
H4-MT-POLE1	Aluminum pole mounting bracket for bullet cameras						
H4-MT-CRNR1	Aluminum corner mounting bracket for bullet cameras						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						

# Ordering Information (Indoor Box and Dome)

## Box Camera

(H5A-B)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-B1	2.0	✓	✓	4.7 - 84.6 mm		✓	✓
2.0C-H5A-B2	2.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-B2	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-B3	4.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-B2	6.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-B2	8.0	✓	✓	4.9 - 8 mm		✓	✓
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						

## Surface Mount Indoor Dome Camera

(H5A-D)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-D1	2.0	✓	✓	3.3 - 9 mm		✓	✓
2.0C-H5A-D1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-D2	2.0	✓	✓	9 - 22 mm		✓	✓
4.0C-H5A-D1	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-D1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-D2	4.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-D1	6.0	✓	✓	4.9 - 8 mm		✓	✓
6.0C-H5A-D1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-D1	8.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-D1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4A-DD-SMOK1	Indoor dome camera cover with smoked bubble						
H4A-DD-CLER1	Indoor dome camera cover with clear bubble						
H4A-DD-SMOK1-BL	Black indoor dome camera cover with smoked bubble						
H4A-DD-CLER1-BL	Black indoor dome camera cover with clear bubble						
H4A-DD-SDWL1	Indoor dome camera sidewall knockout plug, pack of 5						
H4A-DD-SDWL1-BL	Black indoor dome camera sidewall knockout plug, pack of 5						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						

## In-Ceiling Mount Indoor Dome Camera

(H5A-DC)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-DC1	2.0	✓	✓	3.3 - 9 mm		✓	✓
2.0C-H5A-DC1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-DC2	2.0	✓	✓	9 - 22 mm		✓	✓
4.0C-H5A-DC1	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-DC1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-DC2	4.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-DC1	6.0	✓	✓	4.9 - 8 mm		✓	✓
6.0C-H5A-DC1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-DC1	8.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-DC1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4A-DC-SMOK1	In-ceiling dome camera cover with smoked bubble						
H4A-DC-CLER1	In-ceiling dome camera cover with clear bubble						
H4A-DC-SMOK1-BL	Black in-ceiling dome camera cover with smoked bubble						
H4A-DC-CLER1-BL	Black in-ceiling dome camera cover with clear bubble						
H4-DC-CPNL1	Metal ceiling panel						
H4A-AC-GROM1	Camera sealing grommet, pack of 10						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						



# H5A Camera Line

**2 MP****4 MP****5 MP****6 MP****8 MP**

## Features



### NEXT-GENERATION VIDEO ANALYTICS

Expanded object classifications and more accurate detection in crowded scenes so you can detect and act faster.



### MADE IN NORTH AMERICA AND 5 YEAR WARRANTY

Manufactured in North America\* using globally-sourced materials and North American expertise, Avigilon stands behind the quality of its products. Backed by a 5 year warranty.



### H.265 WITH HDSM SMARTCODEC™ TECHNOLOGY

Optimizes compression levels for regions in a scene to help maximize bandwidth savings, helping to keep internet connectivity costs down.



### FOCUS OF ATTENTION WITH ACC™ 7

Leverages AI and video analytics technologies to determine what information is important and should be presented to security operators.



### TRUE WIDE DYNAMIC RANGE

Available in all resolutions, capture details in scenes with both very bright and dark areas.



### LIGHTCATCHER™ TECHNOLOGY

Offers exceptional detail in areas with low lighting.



### ONVIF® COMPLIANT

Built on an open platform to allow integration with other security solutions.



### MULTIPLE LENS OPTIONS

Choose from various lens types, including long zoom, for flexible coverage options.

# Specifications

IMAGE PERFORMANCE			2.0 MP	4.0 MP	5.0 MP	6.0 MP	8.0 MP (4K ULTRA HD)
	Image Sensor		1/2.8" progressive scan CMOS			1/1.8" progressive scan CMOS	
	Max Resolution (H x V) and Aspect Ratio		(16:9) 1920 x 1080	(16:9) 2560 x 1440 (4:3) 2304 x 1728	(4:3) 2592 x 1944 (16:9) 2560 x 1440	(16:9) 3200 x 1800 (3:2) 3072 x 2048	(16:9) 3840 x 2160
	Dynamic Range	WDR Off	83 dB	83 dB	83 dB	85 dB	85 dB
		WDR On	126 dB (dual exposure, 30 fps) 132 dB (triple exposure, 20 fps or less)	126 dB	126 dB	120 dB	120 dB
	Max Image Rate		(50 Hz/60 Hz): 25 fps/30 fps	WDR off (50 Hz/60 Hz): 25 fps/30 fps WDR on (50 Hz/60 Hz): 20 fps/20 fps			50 Hz/60 Hz: 25 fps/30 fps
	Bandwidth Management		HDSM SmartCodec technology; Idle scene mode				
	3D Noise Reduction Filter		Yes				

		3.3 – 9 mm	4.9 – 8 mm	9 – 22 mm	4.7 – 84.6 mm
LENS AND IR ILLUMINATION	IR Illumination Max Distance <sup>1</sup> (high power 850 nm LEDs)	Dome	35 m (115 ft), full tele 15 m (49 ft), full wide	30 m (98 ft), full tele 15 m (49 ft), full wide	N/A
		Bullet	50 m (164 ft), full tele 30 m (98 ft), full wide	90 m (295 ft), full tele 60 m (197 ft), full wide	N/A
	Minimum Illumination	2 MP	0.027 lux in color mode, 0.014 lux in monochrome mode, 0 lux with IR	N/A	0.052 lux in color mode, 0.026 lux in monochrome mode, 0 lux with IR
		4 MP	0.03 lux in color mode, 0.015 lux in monochrome mode, 0 lux with IR	N/A	0.058 lux in color mode, 0.029 lux in monochrome mode, 0 lux with IR
		5 MP	N/A	N/A	0.058 lux in color mode, 0.029 lux in monochrome mode, 0 lux with IR
		6 MP	N/A	0.055 lux in color mode, 0.028 lux in monochrome mode, 0 lux with IR	N/A
		8 MP	N/A	0.055 lux in color mode, 0.028 lux in monochrome mode, 0 lux with IR	N/A
	Horizontal Angle of View Based on Aspect Ratio	2 MP	(16:9) 34° – 99°	N/A	(16:9) 14° – 31°
		4 MP	(16:9)(4:3) 34° – 92°	N/A	(16:9)(4:3) 14° – 31° (4:3) 11° – 24°
		5 MP	N/A	N/A	(16:9)(4:3) 14° – 31°
		6 MP	N/A	(16:9) 52° – 92° (3:2) 41° – 73°	N/A
		8 MP	N/A	(16:9) 52° – 92°	N/A
	Vertical Angle of View Based on Aspect Ratio	2 MP	(16:9) 18° – 53°	N/A	(16:9) 7.8° – 16.7°
		4 MP	(16:9) 18° – 50° (4:3) 25° – 68°	N/A	(16:9) 8.2° – 17.4°
		5 MP	N/A	N/A	(16:9) 8.1° – 17.4° (4:3) 11° – 23°
		6 MP	N/A	(16:9) 29° – 51° (3:2) 27° – 48°	N/A
		8 MP	N/A	(16:9) 29° – 51°	N/A
	Max Aperture	F1.3	F1.8	F1.6	F1.6
	Control	P-Iris, Remote Focus and Zoom			

<sup>1</sup> IR illumination power may be reduced at higher operating temperatures.

IMAGE CONTROL	Image Compression Method	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG
	Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG; HDSM 2.0 on 4.0 MP, 5.0 MP, 6.0 MP, and 4K (8.0 MP) cameras
	Motion Detection	Pixel motion: Selectable sensitivity and threshold. Classified object detection
	Camera Tamper Detection	Yes
	Electronic Shutter Control	Automatic, Manual (1/7 to 1/8196 sec)
	Iris Control	Automatic, Open, Closed
	Day/Night Control	Automatic, Manual
	Flicker Control	60 Hz, 50 Hz
	White Balance	Automatic, Manual
	Backlight Compensation	Adjustable
	Privacy Zones	Up to 64 zones

NETWORK	Network	100BASE-TX, RJ45 Connector, CAT5e Cabling
	ONVIF	ONVIF compliance version 1.02, 2.00, Profile S, Profile T (www.onvif.org)
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication
	Protocols	IPv6, 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

PERIPHERALS	USB Port	USB 2.0
	Onboard Storage	Dome
		Bullet and Box

# Specifications (Con't)

<b>AUXILIARY I/O</b>	Audio Compression Method	G.711 PCM 8 kHz
	Audio Input/Output	Line level input and output
	External I/O Terminals	Alarm In, Alarm Out
	RS-485 Terminal	Yes, Box camera only

<b>MECHANICAL (DOME)</b>	<b>INDOOR SURFACE MOUNT</b>	<b>INDOOR IN-CEILING MOUNT</b>	<b>OUTDOOR SURFACE MOUNT</b>
Dimensions (LxWxH)	163 mm x 163 mm x 118 mm; 6.4" x 6.4" x 4.7"	181 mm x 181 mm x 164 mm; 7.1" x 7.1" x 6.5"	163 mm x 163 mm x 121 mm; 6.4" x 6.4" x 4.8"
Weight	0.99 kg (2.18 lbs)	1.64 kg (3.62 lbs)	1.39 kg (3.06 lbs)
Dome Bubble	Polycarbonate		
Body	Plastic, Aluminum		Aluminum
Housing	Surface mount, tamper resistant	Recessed mount, tamper resistant	Surface mount, vandal resistant
Finish	Plastic, gray	Plastic, gray; Aluminum, powder coat, black	Powder coat, RAL 9003
Adjustment Range	360° pan, ±180° azimuth, 9° – 95° tilt (30° – 95° with -IR option)		

<b>MECHANICAL (PENDANT DOME)</b>	<b>PENDANT CAMERA ONLY</b>	<b>WITH WALL MOUNT (H4A-MT-WALL1)</b>	<b>WITH NPT MOUNT (H4A-MT-NPTA1)</b>
Dimensions (LxWxH)	172 mm x 172 mm x 124 mm; 6.8" x 6.8" x 4.9"	275 mm x 172 mm x 152.1 mm; 10.8" x 6.8" x 6.0"	172 mm x 172 mm x 172.3 mm; 6.8" x 6.8" x 6.8"
Weight	1.59 kg (3.51 lbs)	3.04 kg (6.70 lbs)	1.84 kg (4.06 lbs)
Dome Bubble	Polycarbonate		
Body	Aluminum		
Housing	Pendant mount, vandal resistant		
Finish	Powder coat, RAL 9003		
Adjustment Range	360° pan, ±180° azimuth, 9° – 95° tilt (30° – 95° with -IR option)		

<b>MECHANICAL (BULLET)</b>	Dimensions (LxWxH)	280 mm x 126 mm x 91 mm; 11.04" x 4.97" x 3.58" (including mounting bracket)	
	Weight	Camera	1.71 kg (3.77 lbs)
		Mounting Bracket	0.21 kg (0.46 lbs)
	Body	Aluminum	
	Housing	Surface mount, tamper resistant	
	Finish	Powder coat, RAL 9003	
	Adjustment Range	±175° pan, ±90° tilt, ±175° azimuth	

<b>MECHANICAL (BOX)</b>	Dimensions (LxWxH)	168 mm x 76 mm x 67 mm; 6.6" x 3.0" x 2.6"
	Weight	0.62 kg (1.4 lbs)
	Body	Aluminum
	Camera Mount	1/4"-20 UNC (top and bottom)
	Finish	Powder coat, black

<b>ELECTRICAL</b>	Power Consumption	Bullet	13 W max	
		Dome	13 W max (11 W with no IR or IR disabled)	
		Box	7 W max	
	Power Source	Bullet	VDC: 12 V ± 10%, 13 W min	PoE: IEEE802.3af Class 3 compliant
		Dome	VDC: 12 V ± 10%, 12 W min	PoE: IEEE802.3af Class 3 compliant
		Box	VDC: 12 V ± 10%, 7 W min	PoE: IEEE802.3af Class 3 compliant
	RTC Backup Battery	3V manganese lithium		

<b>ENVIRONMENTAL</b>	Operating Temperature	Bullet	-40 °C to +60 °C (-40 °F to 140 °F), in enclosed space
		Dome	-40 °C to +65 °C (-40 °F to 149 °F), with ambient convection
		Box	-10 °C to +60 °C (-14 °F to 140 °F)
	IR Illuminator Behavior	Bullet	IR illuminator will turn off if the temperature is 61 °C (141 °F) or higher. The illuminator will operate at 50% power if the temperature is between 55 °C (131 °F) and 61 °C (141 °F). Hysteresis: 5 °C (9 °F).
		Indoor Dome	IR illuminator will turn off if the temperature is 55 °C (131 °F) or higher. The illuminator will operate at 50% power if the temperature is between 44 °C (111 °F) and 55 °C (131 °F). Hysteresis: 2 °C (3.6 °F).
		Outdoor Dome	IR illuminator will turn off if the temperature is 57 °C (135 °F) or higher. The illuminator will operate at 50% power if the temperature is between 49 °C (120 °F) and 57 °C (135 °F). Hysteresis: 2 °C (3.6 °F).
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)	
	Humidity	0 - 95% non-condensing	

CERTIFICATIONS	Certifications/Directives		UL, cUL, CE, ROHS, Reach (SVHC), RCM
	Safety		UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC 62471 (with -IR option)
	Environmental	Bullet	UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating, IEC 62262 IK10 Impact Rating
		Outdoor Dome	UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating, IEC 62262 IK10 Impact Rating
	Electromagnetic Emissions		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
	Electromagnetic Immunity		EN 55024, EN 61000-6-1

# Analytics Specifications

## SUPPORTED ANALYTICS EVENTS

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.
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.
Tamper Detection	The event is triggered when the scene unexpectedly changes.

## SUPPORTED CLASSIFIED OBJECT TYPES

Object Types in Outdoor Mode	Vehicle, sub-types: Car, Truck, Bicycle, Motorcycle, Bus Person
Object Types in Indoor Mode	Person

### TEACH BY EXAMPLE

Teach By Example	Yes, when used with Avigilon Control Center™
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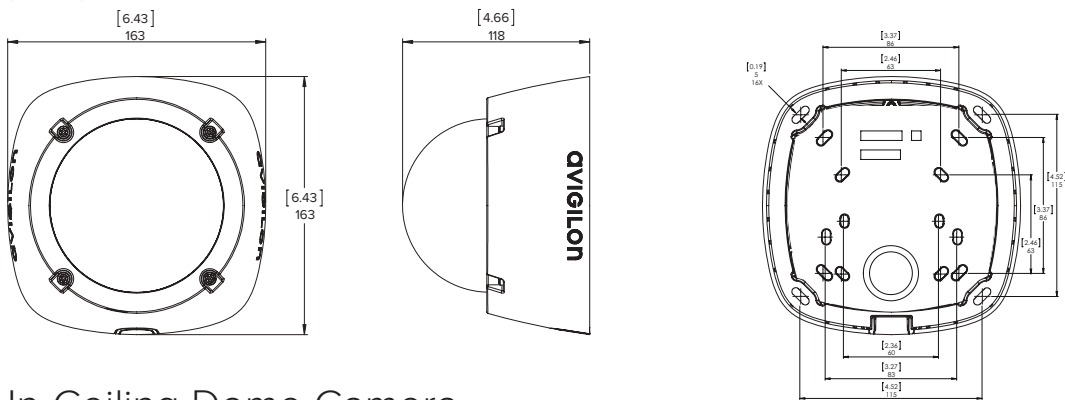
## AVIGILON CONTROL CENTER (ACC) VERSIONS SUPPORTED FEATURES

ACC Version 6.14.12 or higher	All supported analytic events with two types of classified objects: person or vehicle. Appearance search when paired with appropriate server hardware. H.265 supported.
ACC Version 7.2 or higher	All supported analytic events with people and vehicles and all vehicle sub-types as classified objects. Appearance search when paired with appropriate server hardware. H.265 supported.

## Outline Dimensions

## Surface Mount Indoor Dome Camera

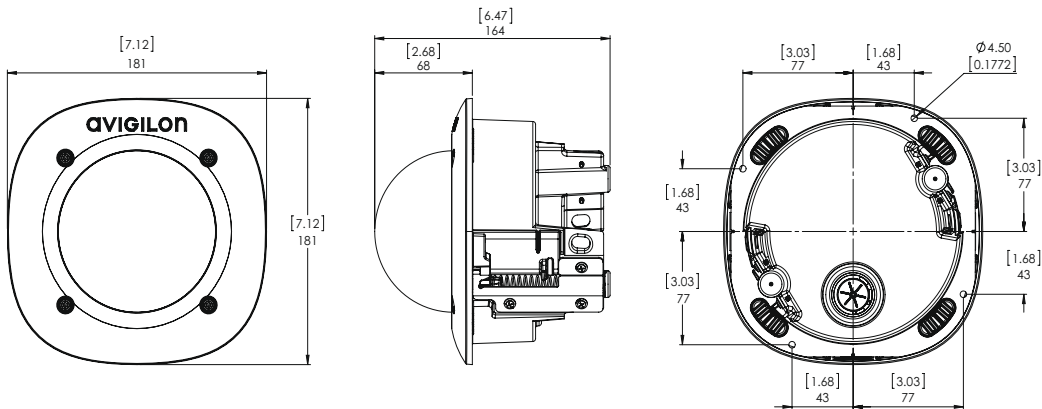
(H5A-D)



[X.X]	INCHES
X	MM

## In-Ceiling Dome Camera

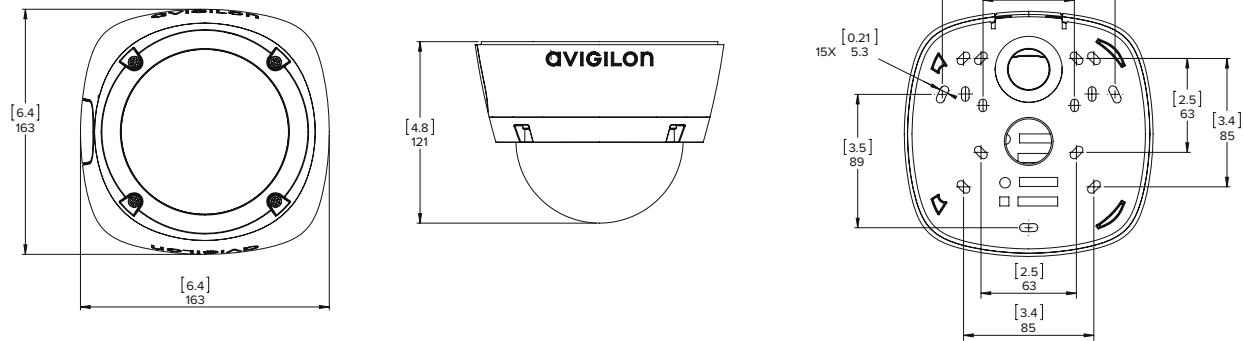
(H5A-DC)



## Outline Dimensions (Con't)

### Surface Mount Outdoor Dome Camera

(H5A-DO)

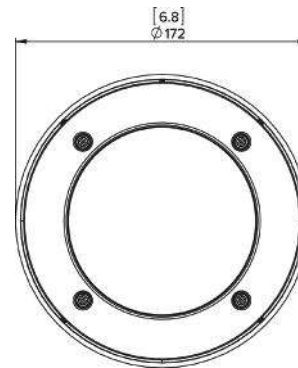
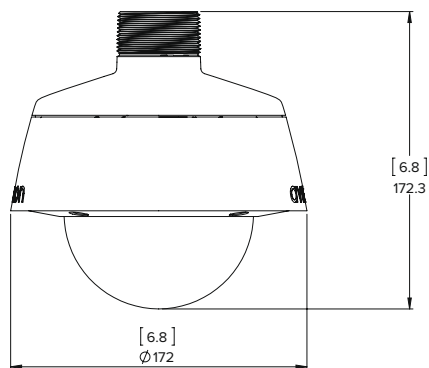


[X.X]	INCHES
X	MM

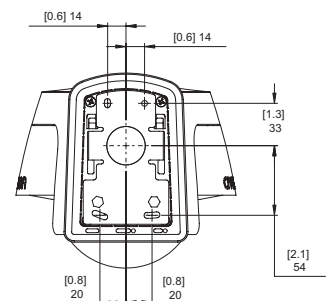
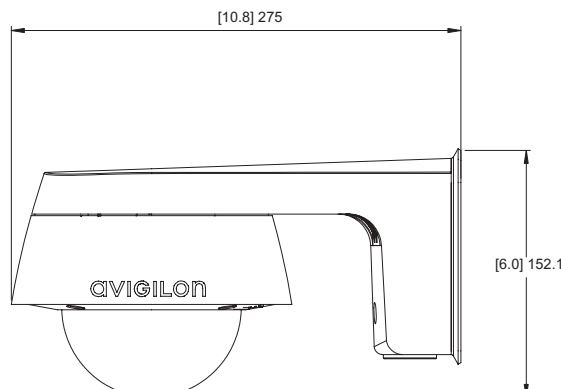
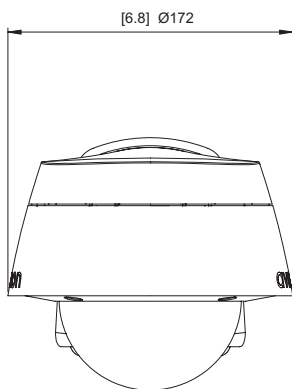
### Pendant Dome Camera

(H5A-DP)

WITH NPT MOUNT  
(H4A-MT-NPTA1)

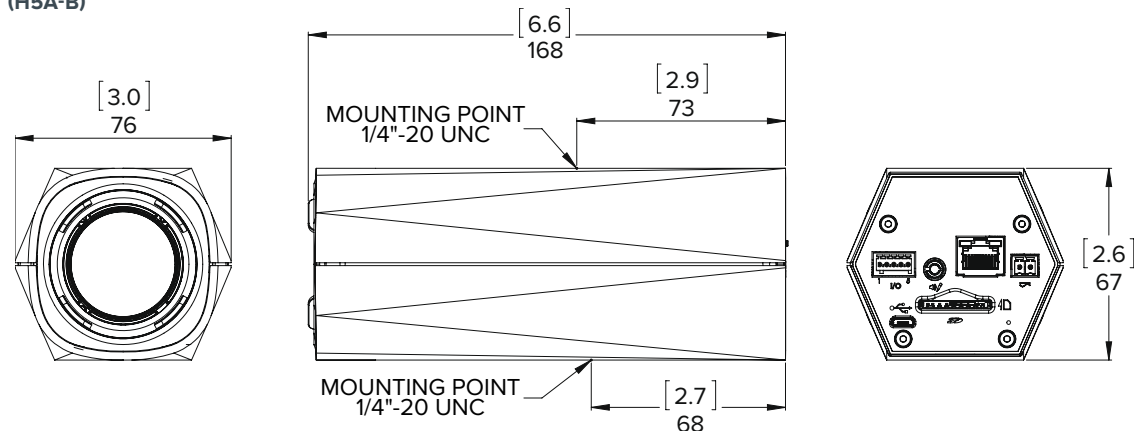


WITH WALL MOUNT  
(H4A-MT-WALL1)



### Box Camera

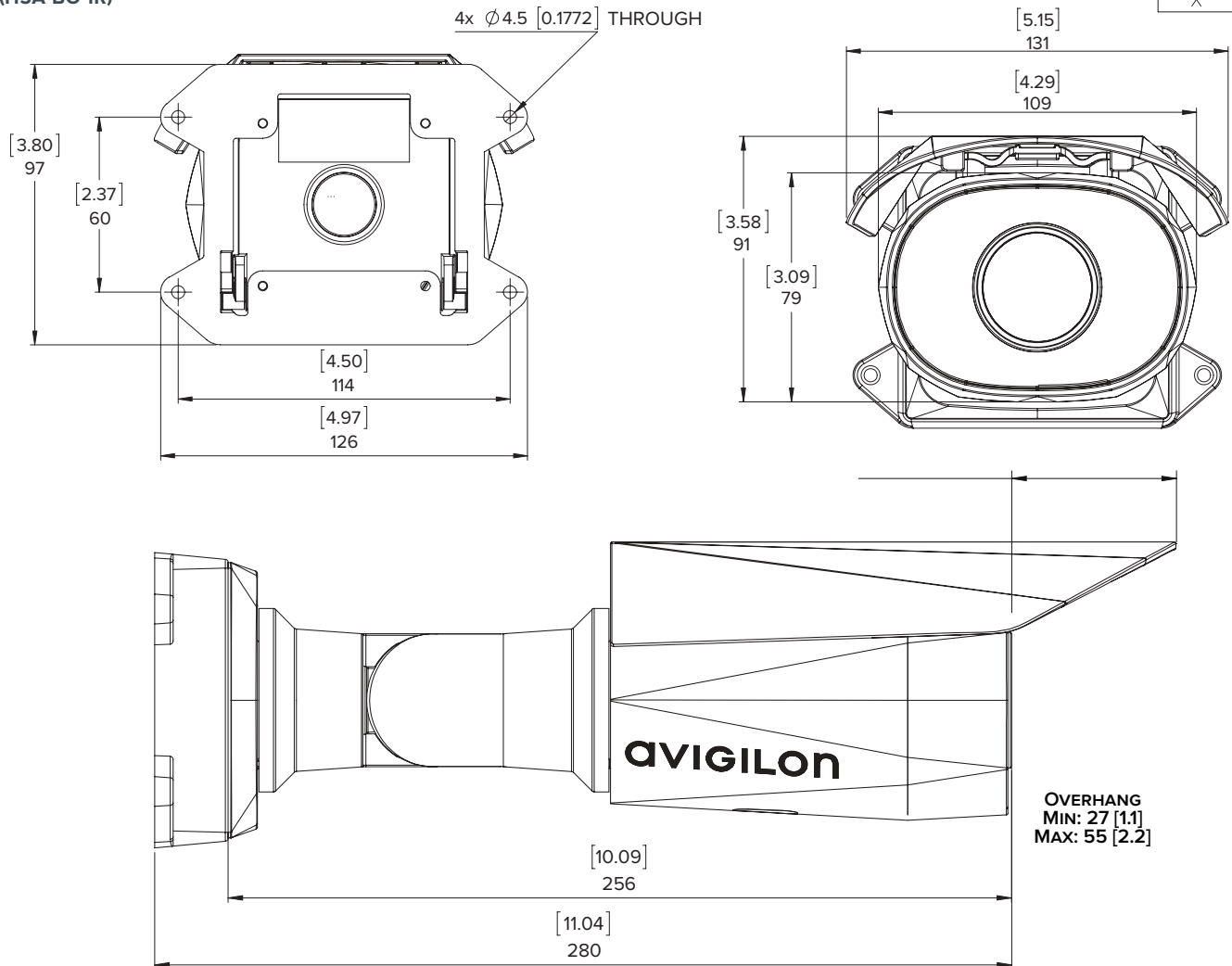
(H5A-B)



# Outline Dimensions (Con't)

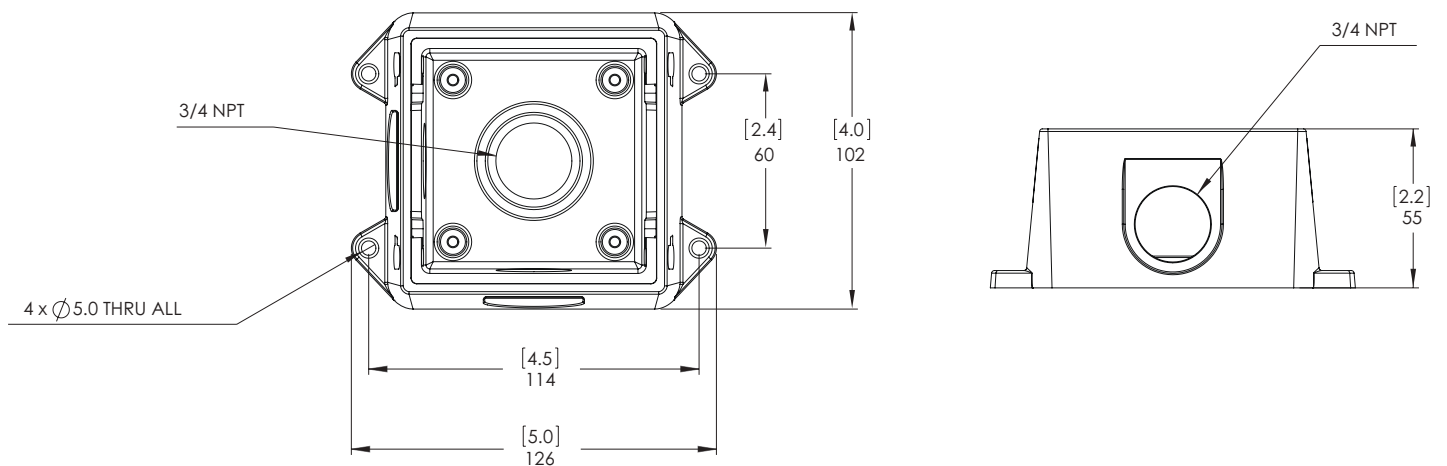
## Bullet Camera

(H5A-BO-IR)



## HD Bullet Camera Junction Box

(H4-BO-JBOX1)



# Ordering Information (Outdoor Dome and Bullet)

## Surface Mount Outdoor Dome Camera

(H5A-DO)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-DO1	2.0	✓	✓	3.3 - 9 mm		✓	✓
2.0C-H5A-DO1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-DO2	2.0	✓	✓	9 - 22 mm		✓	✓
4.0C-H5A-DO1	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-DO1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-DO2	4.0	✓	✓	9 - 22 mm		✓	✓
5.0C-H5A-DO2	5.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-DO1	6.0	✓	✓	4.9 - 8 mm		✓	✓
6.0C-H5A-DO1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-DO1	8.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-DO1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4A-DO-SMOK1	Outdoor dome camera cover with smoked bubble						
H4A-DO-CLER1	Outdoor dome camera cover with clear bubble						
H4A-AC-GROM1	Camera sealing grommet, pack of 10						
CM-AC-GROM1	Pipe grommet, pack of 10						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						

## Pendant Mount Outdoor Dome Camera

(H5A-DP)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-DP1	2.0	✓	✓	3.3 - 9 mm		✓	✓
2.0C-H5A-DP1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-DP2	2.0	✓	✓	9 - 22 mm		✓	✓
4.0C-H5A-DP1	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-DP1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-DP2	4.0	✓	✓	9 - 22 mm		✓	✓
5.0C-H5A-DP2	5.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-DP1	6.0	✓	✓	4.9 - 8 mm		✓	✓
6.0C-H5A-DP1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-DP1	8.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-DP1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4A-DP-SMOK1	Pendant dome camera cover with smoked bubble						
H4A-DP-CLER1	Pendant dome camera cover with clear bubble						
H4A-MT-WALL1	Indoor/outdoor pendant wall arm mount						
H4A-MT-NPTA1	Indoor/outdoor pendant NPT mount						
H4-MT-POLE1	Aluminum pole mounting bracket for pendant dome cameras						
H4-MT-CRNR1	Aluminum corner mounting bracket for pendant dome cameras						
CM-AC-GROM1	Pipe grommet, pack of 10						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						

## Outdoor Bullet Camera

(H5A-BO-IR)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-BO1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-BO2-IR	2.0	✓	✓	9 - 22 mm	✓	✓	✓
4.0C-H5A-BO1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-BO2-IR	4.0	✓	✓	9 - 22 mm	✓	✓	✓
5.0C-H5A-BO2-IR	5.0	✓	✓	9 - 22 mm	✓	✓	✓
6.0C-H5A-BO1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-BO1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4-BO-JBOX1	Junction box for bullet cameras						
H4-MT-POLE1	Aluminum pole mounting bracket for bullet cameras						
H4-MT-CRNR1	Aluminum corner mounting bracket for bullet cameras						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						

# Ordering Information (Indoor Box and Dome)

## Box Camera

(H5A-B)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-B1	2.0	✓	✓	4.7 - 84.6 mm		✓	✓
2.0C-H5A-B2	2.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-B2	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-B3	4.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-B2	6.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-B2	8.0	✓	✓	4.9 - 8 mm		✓	✓
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						

## Surface Mount Indoor Dome Camera

(H5A-D)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-D1	2.0	✓	✓	3.3 - 9 mm		✓	✓
2.0C-H5A-D1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-D2	2.0	✓	✓	9 - 22 mm		✓	✓
4.0C-H5A-D1	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-D1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-D2	4.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-D1	6.0	✓	✓	4.9 - 8 mm		✓	✓
6.0C-H5A-D1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-D1	8.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-D1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4A-DD-SMOK1	Indoor dome camera cover with smoked bubble						
H4A-DD-CLER1	Indoor dome camera cover with clear bubble						
H4A-DD-SMOK1-BL	Black indoor dome camera cover with smoked bubble						
H4A-DD-CLER1-BL	Black indoor dome camera cover with clear bubble						
H4A-DD-SDWL1	Indoor dome camera sidewall knockout plug, pack of 5						
H4A-DD-SDWL1-BL	Black indoor dome camera sidewall knockout plug, pack of 5						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						

## In-Ceiling Mount Indoor Dome Camera

(H5A-DC)	MP	WDR	LightCatcher Technology	Lens	IR	Analytics	HDSM SmartCodec
2.0C-H5A-DC1	2.0	✓	✓	3.3 - 9 mm		✓	✓
2.0C-H5A-DC1-IR	2.0	✓	✓	3.3 - 9 mm	✓	✓	✓
2.0C-H5A-DC2	2.0	✓	✓	9 - 22 mm		✓	✓
4.0C-H5A-DC1	4.0	✓	✓	3.3 - 9 mm		✓	✓
4.0C-H5A-DC1-IR	4.0	✓	✓	3.3 - 9 mm	✓	✓	✓
4.0C-H5A-DC2	4.0	✓	✓	9 - 22 mm		✓	✓
6.0C-H5A-DC1	6.0	✓	✓	4.9 - 8 mm		✓	✓
6.0C-H5A-DC1-IR	6.0	✓	✓	4.9 - 8 mm	✓	✓	✓
8.0C-H5A-DC1	8.0	✓	✓	4.9 - 8 mm		✓	✓
8.0C-H5A-DC1-IR	8.0	✓	✓	4.9 - 8 mm	✓	✓	✓
H4A-DC-SMOK1	In-ceiling dome camera cover with smoked bubble						
H4A-DC-CLER1	In-ceiling dome camera cover with clear bubble						
H4A-DC-SMOK1-BL	Black in-ceiling dome camera cover with smoked bubble						
H4A-DC-CLER1-BL	Black in-ceiling dome camera cover with clear bubble						
H4-DC-CPNL1	Metal ceiling panel						
H4A-AC-GROM1	Camera sealing grommet, pack of 10						
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter						
CM-AC-AVIO1	3.5 mm jack with 1.8 m fly wire						



# H5SL Camera Line

**1.3 MP****2 MP****3 MP****5 MP**

## Features



### UNUSUAL MOTION DETECTION

Uses AI to notify you of unusual events that might otherwise have been missed, offering increased situational awareness and helping you effectively monitor more cameras.



### LIGHTCATCHER™ TECHNOLOGY

Offers exceptional detail in areas with low lighting.



### DUAL EXPOSURE WIDE DYNAMIC RANGE

Capture details in scenes with both very bright and dark areas.



### ONVIF® COMPLIANT

Built on an open platform to allow integration with other security solutions.



### MULTIPLE LENS OPTIONS

Choose from various lens types, including long zoom, for flexible coverage options.



### H.265 WITH HDSM SMARTCODEC™ TECHNOLOGY

Optimizes compression levels for regions in a scene to help maximize bandwidth savings, helping to keep internet connectivity costs down.



### ADAPTIVE INFRARED (IR)

Automatically adjusts IR beam width and exposure settings based on scene conditions to help maximize image quality.



### RELAY I/O CONNECTIONS

Incorporate and configure input/output actions and alarms for fast event response.



### MADE IN NORTH AMERICA AND 5 YEAR WARRANTY

Manufactured in North America\* using globally-sourced materials and North American expertise, Avigilon stands behind the quality of its products. Backed by a 5 year warranty.

# Specifications

IMAGE PERFORMANCE			1.3 MP	2.0 MP	3.0 MP	5.0 MP
	Image Sensor		1/2.8" progressive scan CMOS			
	Aspect Ratio		5:4	16:9	4:3	4:3
	Active Pixels (H x V)		1280 x 1024	1920 x 1080	2048 x 1536	2592 x 1944
	Imaging Area (H x V)		3.2 mm x 2.56 mm; 0.126" x 0.101"	4.8 mm x 2.7 mm; 0.189" x 0.106"	5.12 mm x 3.84 mm; 0.202" x 0.151"	5.18 mm x 3.89 mm; 0.204" x 0.153"
	Max Image Rate		(50 Hz/60 Hz): 25 fps/30 fps			
			(50 Hz/60 Hz): 25 fps/24 fps			
	Dynamic Range	WDR Off	100 dB			
		WDR On	120 dB (dual exposure)			
	Resolution Scaling		Down to 384 x 216			
	Camera Operating Mode		N/A			
Bandwidth Management		HDSM SmartCodec technology; Idle scene mode				
3D Noise Reduction Filter		Yes				

		3 – 9 mm	3.1 – 8.4 mm	9.5 – 31 mm
LENS AND IR ILLUMINATION	IR Illumination Max Distance (high power 850 nm LEDs)	Dome	30 m (100 ft), full tele 20 m (65 ft), full wide	N/A
		Bullet	N/A	70 m (230 ft), full tele 30 m (100 ft), full wide
	Minimum Illumination	1.3 MP	With IR: 0 lux in color or monochrome mode Without IR: 0.03 lux in color mode; 0.015 lux in monochrome mode	N/A
		2.0 MP	With IR: 0 lux in color or monochrome mode Without IR: 0.04 lux in color mode; 0.02 lux in monochrome mode	N/A
		3.0 MP	With IR: 0 lux in color or monochrome mode Without IR: 0.02 lux in color mode; 0.01 lux in monochrome mode	With IR: 0 lux in color or monochrome mode Without IR: 0.03 lux in color mode; 0.015 lux in monochrome mode
		5.0 MP	N/A	With IR: 0 lux in color or monochrome mode Without IR: 0.015 lux in color mode; 0.007 lux in monochrome mode
	Horizontal Angle of View Based on Aspect Ratio	1.3 MP	(16:9)(4:3) 35° – 90°	N/A
		2.0 MP	(5:4) 33° – 85°	N/A
		3.0 MP	(16:9)(4:3) 35° – 90°	(16:9) 10° – 32°; (5:4) 9.5° – 32°; (4:3) 9.5° – 30°
		5.0 MP	N/A	(16:9)(4:3) 9.5° – 30°
	Vertical Angle of View Based on Aspect Ratio	1.3 MP	(16:9) 20° – 49°	N/A
		2.0 MP	(5:4)(4:3) 26° – 66°	N/A
		3.0 MP	(16:9) 20° – 49°; (4:3) 26° – 66°	(16:9) 6° – 17°; (5:4)(4:3) 7° – 23°
		5.0 MP	N/A	(16:9) 6° – 17°; (4:3) 7° – 23°
	Max Aperture	F1.4	F1.6	F1.4
	Control	P-Iris, Remote Focus and Zoom		

IMAGE CONTROL	Image Compression Method	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG
	Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG
	Motion Detection	Pixel and Unusual Motion Detection (UMD)
	Tamper Detection	Yes
	Electronic Shutter Control	Automatic, Manual (1/6 to 1/8000 sec)
	Iris Control	Automatic, Manual
	Day/Night Control	Automatic, Manual
	Flicker Control	50 Hz, 60 Hz
	White Balance	Automatic, Manual
	Backlight Compensation	Adjustable
	Privacy Zones	Up to 64 zones

AUXILIARY I/O	Audio Compression Method	Opus, G.711 PCM 8 kHz
	Audio Input/Output	Line level input and output
	External I/O Terminals	Alarm In, Alarm Out

NETWORK	Network	100BASE-TX
	Cabling Type	CAT5
	Connector	RJ-45
	ONVIF	ONVIF compliant with Profile S and Profile T (www.onvif.org)
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication
	Protocols	IPv6, 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

PERIPHERALS	USB Port	USB 2.0
	Onboard Storage	microSD/microSDHC/microSDXC slot – minimum class 6; class 10/UHS-1 or better recommended

# Specifications (Con't)

## MECHANICAL (DOME)

	SURFACE MOUNT	IN-CEILING MOUNT	PENDANT MOUNT	
			NPT ADAPTER	NPT + WALL MOUNT
Dimensions (LxWxH)	147 mm x 147 mm x 119 mm; 5.8" x 5.8" x 4.7"	174 mm x 174 mm x 162 mm; 6.9" x 6.9" x 6.4"	153 mm x 153 mm x 166 mm; 6.0" x 6.0" x 6.5"	269 mm x 153 mm x 214 mm; 10.6" x 6.0" x 8.4"
Max. Ceiling Thickness	N/A	32 mm (1.25")	N/A	N/A
Weight	Indoor Dome — 0.76 kg; 1.68 lbs Outdoor Dome — 0.78 kg; 1.72 lbs	Indoor Dome — 0.75 kg; 1.65 lbs Outdoor Dome — 0.77 kg; 1.69 lbs	Indoor Dome — 0.75 kg; 1.65 lbs Outdoor Dome — 0.77 kg; 1.69 lbs	Indoor Dome — 2.02 kg; 4.45 lbs Outdoor Dome — 2.04 kg; 4.49 lbs
Dome Bubble	Polycarbonate, clear			
Body	Polycarbonate			Polycarbonate/aluminum
Housing	Vandal resistant			
Finish	Cool grey			Close to RAL 9003
Adjustment Range	360° pan, ±180° azimuth, 30° – 95° tilt (recommended), 10° – 95° tilt (maximum)			

## MECHANICAL (BULLET)

Dimensions (LxWxH)	285 mm x 131 mm x 97 mm; 11.2" x 5.1" x 3.8" (including mounting bracket)		
Weight	Camera	1.29 kg (2.84 lbs)	
	Mounting Bracket	0.21 kg (0.46 lbs)	
Body	Aluminum		
Housing	Surface mount, tamper resistant, vandal resistant		
Finish	Powder coat, cool grey		
Adjustment Range	±175° pan, ±90° tilt, ±175° azimuth		

## ELECTRICAL

Power Consumption	Indoor Dome	5 W max
	Outdoor Dome	8 W max
	Bullet	9 W max
Power Source*	PoE: IEEE802.3af Class 3 compliant	
RTC Backup Battery	3V manganese lithium	

\* When powered with some models of PoE++ injectors, the injectors may not power the camera correctly.

## ENVIRONMENTAL

Operating Temperature	Indoor Dome	0 °C to +60 °C (32 °F to 140 °F)
	Bullet and Outdoor Dome	-30 °C to +60 °C (-22 °F to 140 °F)
Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)	
Humidity	0 - 95% non-condensing	

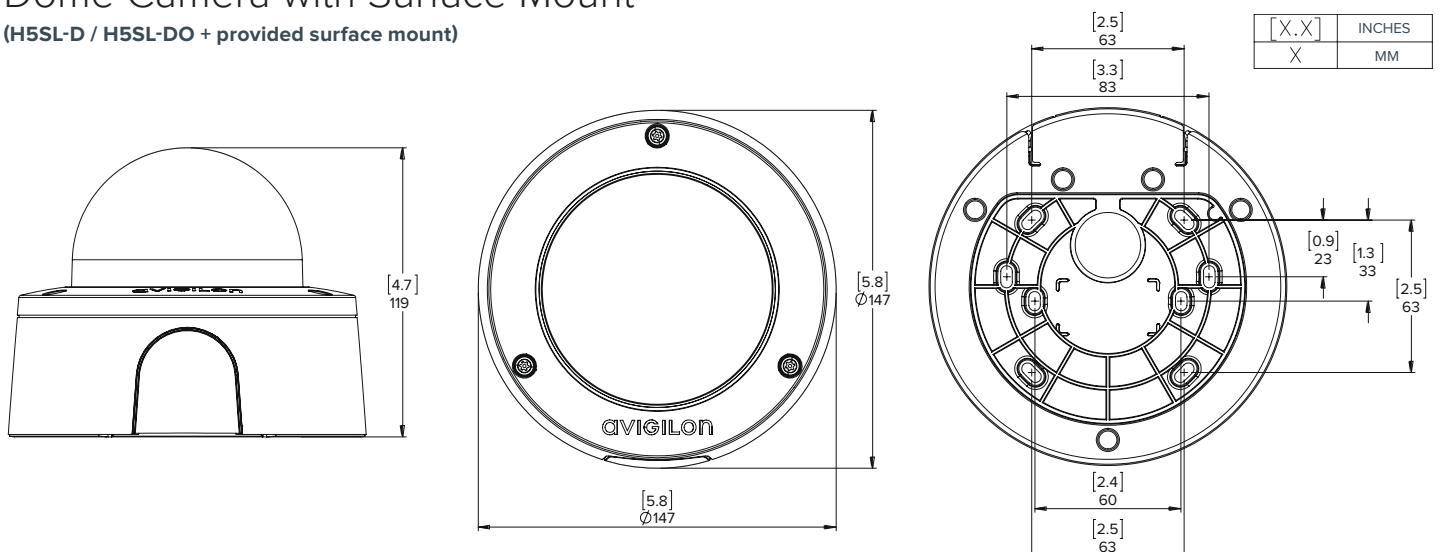
## CERTIFICATIONS

Certifications/Directives	UL, cUL, CE, ROHS, RCM, BIS	
Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC 62471	
Environmental	Bullet	IEC 62262 IK10 Impact Rating, UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating
	Outdoor Dome	IEC 62262 IK10 Impact Rating, UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating
Electromagnetic Emissions	FCC Part 15 Subpart B Class B, IC ICES-003 Class B, EN 55032 Class B, EN 61000-3-2, EN 61000-3-3	
Electromagnetic Immunity	EN 55024, EN 61000-6-1	
Industrial EMC	EN 50130-4, EN 50121-4	

# Outline Dimensions

## Dome Camera with Surface Mount

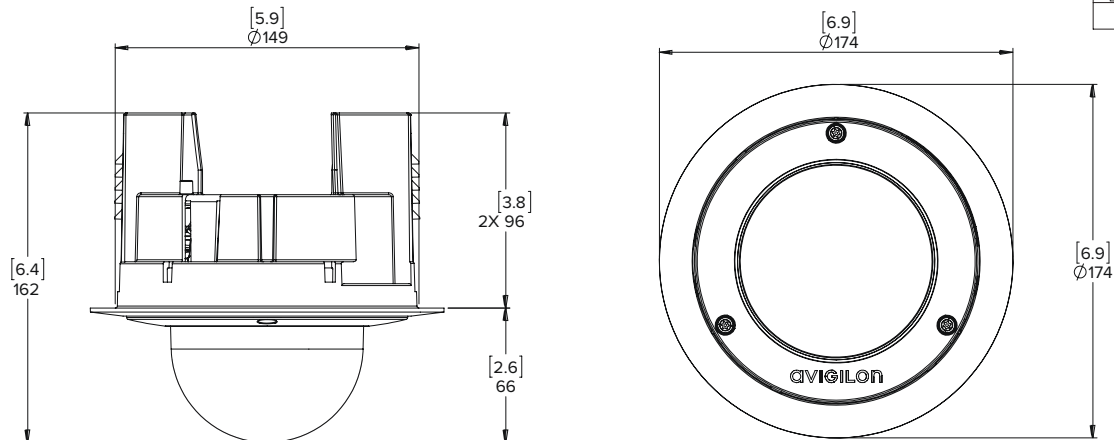
(H5SL-D / H5SL-DO + provided surface mount)



## Outline Dimensions (Con't)

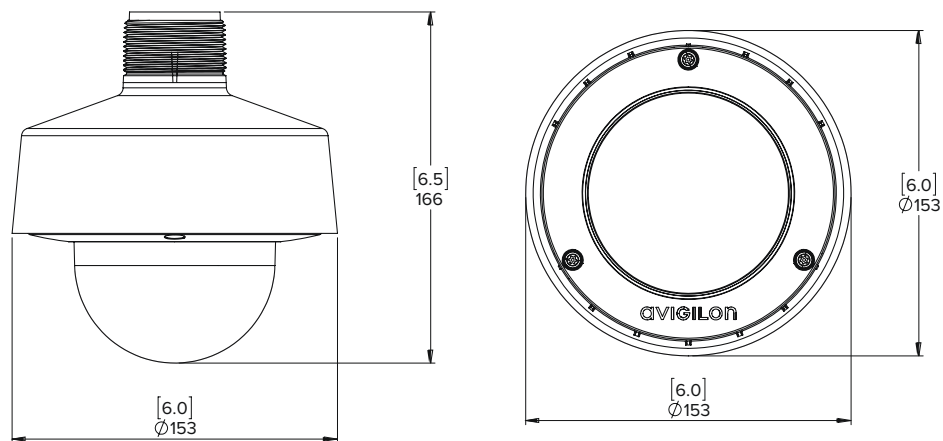
### Dome Camera with In-Ceiling Mount

(H5SL-D/H5SL-DO + H4SL-MT-DCIL)



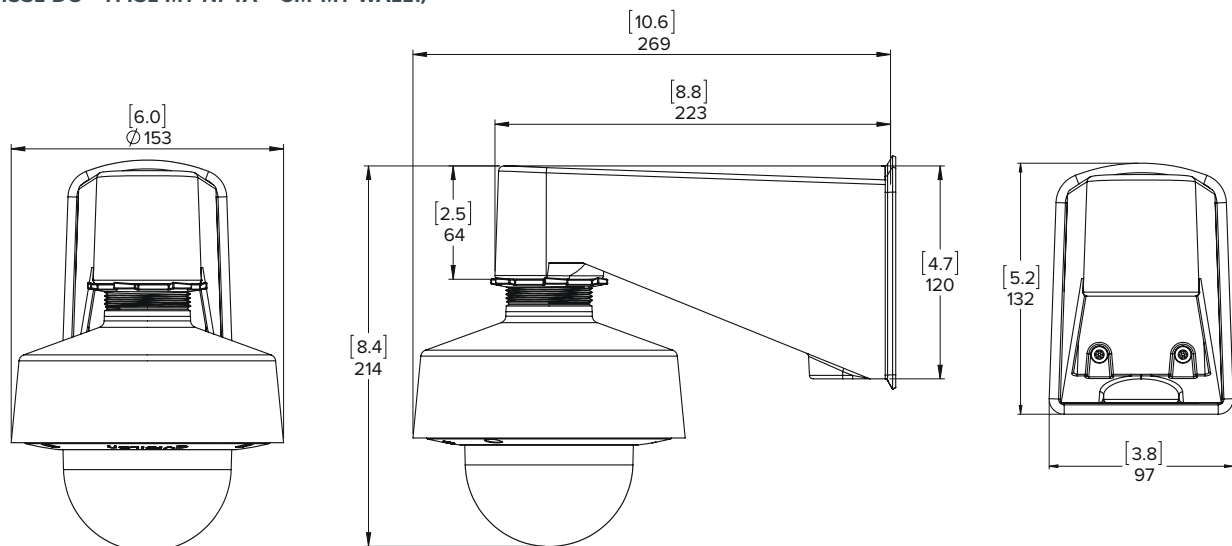
### Dome Camera with NPT Adapter

(H5SL-D/H5SL-DO + H4SL-MT-NPTA)



### Dome Camera with NPT Adapter and Pendant Wall Mount

(H5SL-D/H5SL-DO + H4SL-MT-NPTA + CM-MT-WALL1)

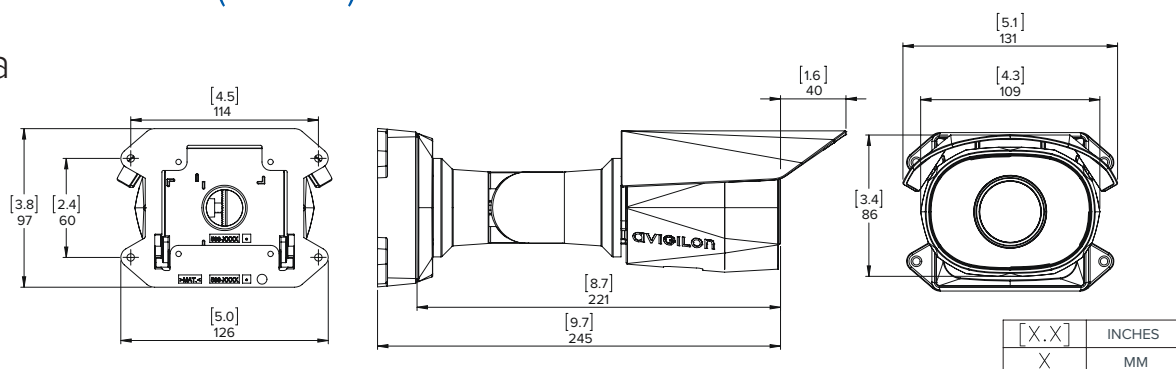


# Outline Dimensions (Con't)

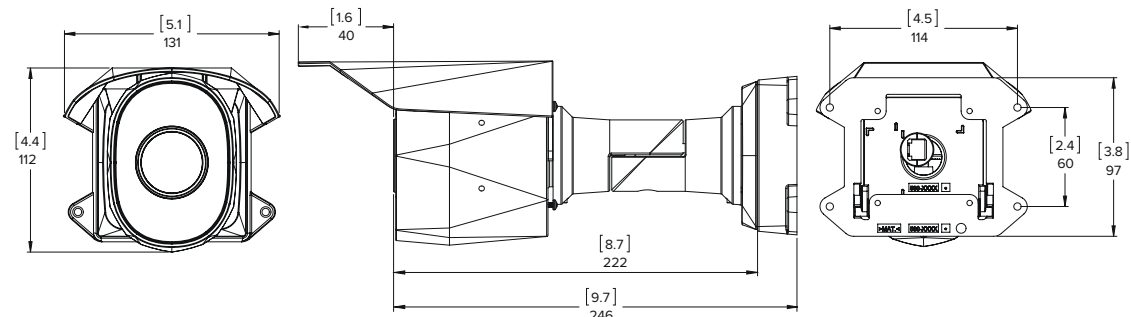
## Bullet Camera

(H5SL-BO-IR)

LANDSCAPE  
MODE

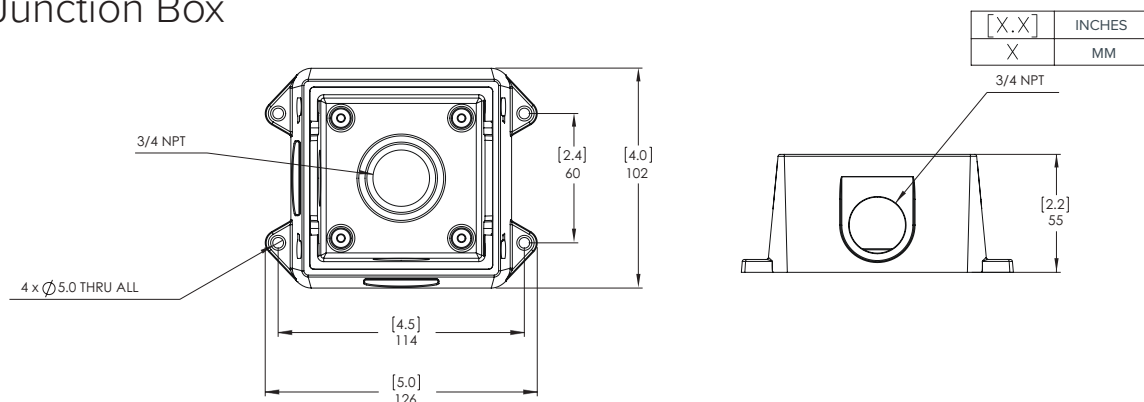


HALLWAY  
MODE



## Bullet Camera Junction Box

(H4-BO-JBOX1)



# Ordering Information (Bullet)

	MP	WDR	LightCatcher Technology	Lens	IR	IP66/IP67	HDSM SmartCodec
1.3C-H5SL-BO1-IR	1.3	✓	✓	3.1 - 8.4 mm	✓	✓	✓
2.0C-H5SL-BO1-IR	2.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
3.0C-H5SL-BO1-IR	3.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
3.0C-H5SL-BO2-IR	3.0	✓	✓	9.5 - 31 mm	✓	✓	✓
5.0C-H5SL-BO1-IR	5.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
5.0C-H5SL-BO2-IR	5.0	✓	✓	9.5 - 31 mm	✓	✓	✓

H4-BO-JBOX1	Junction box for H5SL, H4SL, and H4 HD bullet cameras
H4-MT-POLE1	Aluminum pole mounting bracket
H4-MT-CRNR1	Aluminum corner mounting bracket
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter

# Ordering Information (Dome)

The variety of mounting options for the H5SL dome camera provides maximum flexibility. All the available camera modules can be used in any of the mounting options.

## MOUNTING SCENARIO

## ORDERING INFORMATION

### SURFACE MOUNT



Order one of:

- Camera

### IN-CEILING MOUNT



Order one of:

- Camera
- H4SL-MT-DCIL1
- Optional, H4-DC-CPNL1 if ceiling panel needed

### PENDANT NPT MOUNT



Order one of:

- Camera
- H4SL-MT-NPTA1

### PENDANT WALL MOUNT



Order one of:

- Camera
- H4SL-MT-NPTA1
- CM-MT-WALL1
- Optional, H4-MT-POLE1 or H4-MT-CRNR1 if pole or corner mount needed

	MP	WDR	LightCatcher Technology	Lens	IR	IP66/IP67	HDSM SmartCodec
1.3C-H5SL-D1	1.3	✓	✓	3 - 9 mm			✓
1.3C-H5SL-D1-IR	1.3	✓	✓	3 - 9 mm	✓		✓
1.3C-H5SL-DO1-IR	1.3	✓	✓	3.1 - 8.4 mm	✓	✓	✓
2.0C-H5SL-D1	2.0	✓	✓	3 - 9 mm			✓
2.0C-H5SL-D1-IR	2.0	✓	✓	3 - 9 mm	✓		✓
2.0C-H5SL-DO1-IR	2.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
3.0C-H5SL-D1	3.0	✓	✓	3 - 9 mm			✓
3.0C-H5SL-D1-IR	3.0	✓	✓	3 - 9 mm	✓		✓
3.0C-H5SL-DO1-IR	3.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
5.0C-H5SL-D1	5.0	✓	✓	3.1 - 8.4 mm			✓
5.0C-H5SL-D1-IR	5.0	✓	✓	3.1 - 8.4 mm	✓		✓
5.0C-H5SL-DO1-IR	5.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓

H4SL-MT-DCIL1	In-ceiling mounting adapter for the H5SL and H4SL dome camera
H4SL-MT-NPTA1	NPT adapter for the H5SL and H4SL dome camera
CM-MT-WALL1	Pendant wall mount
H4-DC-CPNL1	Metal ceiling panel
H4-MT-POLE1	Aluminum pole mounting bracket
H4-MT-CRNR1	Aluminum corner mounting bracket
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter
H4SL-DD-SMOK1	Replacement outdoor smoke dome cover
H4SL-DD-CLER1	Replacement outdoor clear dome cover
H4SL-DI-SMOK1	Replacement indoor smoke dome cover
H4SL-DI-CLER1	Replacement indoor clear dome cover
H4SL-DO1-BASE	Replacement outdoor surface mount adapter
H4SL-D1-BASE	Replacement indoor surface mount adapter

# H5SL Camera Line

**1.3 MP****2 MP****3 MP****5 MP**

## Features



### UNUSUAL MOTION DETECTION

Uses AI to notify you of unusual events that might otherwise have been missed, offering increased situational awareness and helping you effectively monitor more cameras.



### H.265 WITH HDSM SMARTCODEC™ TECHNOLOGY

Optimizes compression levels for regions in a scene to help maximize bandwidth savings, helping to keep internet connectivity costs down.



### LIGHTCATCHER™ TECHNOLOGY

Offers exceptional detail in areas with low lighting.



### ADAPTIVE INFRARED (IR)

Automatically adjusts IR beam width and exposure settings based on scene conditions to help maximize image quality.



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Capture details in scenes with both very bright and dark areas.



### RELAY I/O CONNECTIONS

Incorporate and configure input/output actions and alarms for fast event response.



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Built on an open platform to allow integration with other security solutions.



### MADE IN NORTH AMERICA AND 5 YEAR WARRANTY

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### MULTIPLE LENS OPTIONS

Choose from various lens types, including long zoom, for flexible coverage options.

# Specifications

IMAGE PERFORMANCE			1.3 MP	2.0 MP	3.0 MP	5.0 MP
	Image Sensor		1/2.8" progressive scan CMOS			
	Aspect Ratio		5:4	16:9	4:3	4:3
	Active Pixels (H x V)		1280 x 1024	1920 x 1080	2048 x 1536	2592 x 1944
	Imaging Area (H x V)		3.2 mm x 2.56 mm; 0.126" x 0.101"	4.8 mm x 2.7 mm; 0.189" x 0.106"	5.12 mm x 3.84 mm; 0.202" x 0.151"	5.18 mm x 3.89 mm; 0.204" x 0.153"
	Max Image Rate		(50 Hz/60 Hz): 25 fps/30 fps			
			(50 Hz/60 Hz): 25 fps/24 fps			
	Dynamic Range	WDR Off	100 dB			
		WDR On	120 dB (dual exposure)			
	Resolution Scaling		Down to 384 x 216			
	Camera Operating Mode		N/A			
Bandwidth Management		HDSM SmartCodec technology; Idle scene mode				
3D Noise Reduction Filter		Yes				

		3 – 9 mm	3.1 – 8.4 mm	9.5 – 31 mm
LENS AND IR ILLUMINATION	IR Illumination Max Distance (high power 850 nm LEDs)	Dome	30 m (100 ft), full tele 20 m (65 ft), full wide	N/A
		Bullet	N/A	70 m (230 ft), full tele 30 m (100 ft), full wide
	Minimum Illumination	1.3 MP	With IR: 0 lux in color or monochrome mode Without IR: 0.03 lux in color mode; 0.015 lux in monochrome mode	N/A
		2.0 MP	With IR: 0 lux in color or monochrome mode Without IR: 0.04 lux in color mode; 0.02 lux in monochrome mode	N/A
		3.0 MP	With IR: 0 lux in color or monochrome mode Without IR: 0.02 lux in color mode; 0.01 lux in monochrome mode	With IR: 0 lux in color or monochrome mode Without IR: 0.03 lux in color mode; 0.015 lux in monochrome mode
		5.0 MP	N/A	With IR: 0 lux in color or monochrome mode Without IR: 0.015 lux in color mode; 0.007 lux in monochrome mode
	Horizontal Angle of View Based on Aspect Ratio	1.3 MP	(16:9)(4:3) 35° – 90°	N/A
		2.0 MP	(5:4) 33° – 85°	N/A
		3.0 MP	(16:9)(4:3) 35° – 90°	(16:9) 10° – 32°; (5:4) 9.5° – 32°; (4:3) 9.5° – 30°
		5.0 MP	N/A	(16:9)(4:3) 9.5° – 30°
	Vertical Angle of View Based on Aspect Ratio	1.3 MP	(16:9) 20° – 49°	N/A
		2.0 MP	(5:4)(4:3) 26° – 66°	N/A
		3.0 MP	(16:9) 20° – 49°; (4:3) 26° – 66°	(16:9) 6° – 17°; (5:4)(4:3) 7° – 23°
		5.0 MP	N/A	(16:9) 6° – 17°; (4:3) 7° – 23°
	Max Aperture	F1.4	F1.6	F1.4
	Control	P-Iris, Remote Focus and Zoom		

IMAGE CONTROL	Image Compression Method	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG
	Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG
	Motion Detection	Pixel and Unusual Motion Detection (UMD)
	Tamper Detection	Yes
	Electronic Shutter Control	Automatic, Manual (1/6 to 1/8000 sec)
	Iris Control	Automatic, Manual
	Day/Night Control	Automatic, Manual
	Flicker Control	50 Hz, 60 Hz
	White Balance	Automatic, Manual
	Backlight Compensation	Adjustable
	Privacy Zones	Up to 64 zones

AUXILIARY I/O	Audio Compression Method	Opus, G.711 PCM 8 kHz
	Audio Input/Output	Line level input and output
	External I/O Terminals	Alarm In, Alarm Out

NETWORK	Network	100BASE-TX
	Cabling Type	CAT5
	Connector	RJ-45
	ONVIF	ONVIF compliant with Profile S and Profile T (www.onvif.org)
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication
	Protocols	IPv6, 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

PERIPHERALS	USB Port	USB 2.0
	Onboard Storage	microSD/microSDHC/microSDXC slot – minimum class 6; class 10/UHS-1 or better recommended



# Specifications (Con't)

## MECHANICAL (DOME)

	SURFACE MOUNT	IN-CEILING MOUNT	PENDANT MOUNT	
			NPT ADAPTER	NPT + WALL MOUNT
Dimensions (LxWxH)	147 mm x 147 mm x 119 mm; 5.8" x 5.8" x 4.7"	174 mm x 174 mm x 162 mm; 6.9" x 6.9" x 6.4"	153 mm x 153 mm x 166 mm; 6.0" x 6.0" x 6.5"	269 mm x 153 mm x 214 mm; 10.6" x 6.0" x 8.4"
Max. Ceiling Thickness	N/A	32 mm (1.25")	N/A	N/A
Weight	Indoor Dome — 0.76 kg; 1.68 lbs Outdoor Dome — 0.78 kg; 1.72 lbs	Indoor Dome — 0.75 kg; 1.65 lbs Outdoor Dome — 0.77 kg; 1.69 lbs	Indoor Dome — 0.75 kg; 1.65 lbs Outdoor Dome — 0.77 kg; 1.69 lbs	Indoor Dome — 2.02 kg; 4.45 lbs Outdoor Dome — 2.04 kg; 4.49 lbs
Dome Bubble	Polycarbonate, clear			
Body	Polycarbonate			Polycarbonate/aluminum
Housing	Vandal resistant			
Finish	Cool grey			Close to RAL 9003
Adjustment Range	360° pan, ±180° azimuth, 30° – 95° tilt (recommended), 10° – 95° tilt (maximum)			

## MECHANICAL (BULLET)

Dimensions (LxWxH)		285 mm x 131 mm x 97 mm; 11.2" x 5.1" x 3.8" (including mounting bracket)	
Weight	Camera	1.29 kg (2.84 lbs)	
	Mounting Bracket	0.21 kg (0.46 lbs)	
Body		Aluminum	
Housing		Surface mount, tamper resistant, vandal resistant	
Finish		Powder coat, cool grey	
Adjustment Range		±175° pan, ±90° tilt, ±175° azimuth	

## ELECTRICAL

Power Consumption	Indoor Dome	5 W max
	Outdoor Dome	8 W max
	Bullet	9 W max
Power Source*	PoE: IEEE802.3af Class 3 compliant	
RTC Backup Battery	3V manganese lithium	

\* When powered with some models of PoE++ injectors, the injectors may not power the camera correctly.

## ENVIRONMENTAL

Operating Temperature	Indoor Dome	0 °C to +60 °C (32 °F to 140 °F)
	Bullet and Outdoor Dome	-30 °C to +60 °C (-22 °F to 140 °F)
Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)	
Humidity	0 - 95% non-condensing	

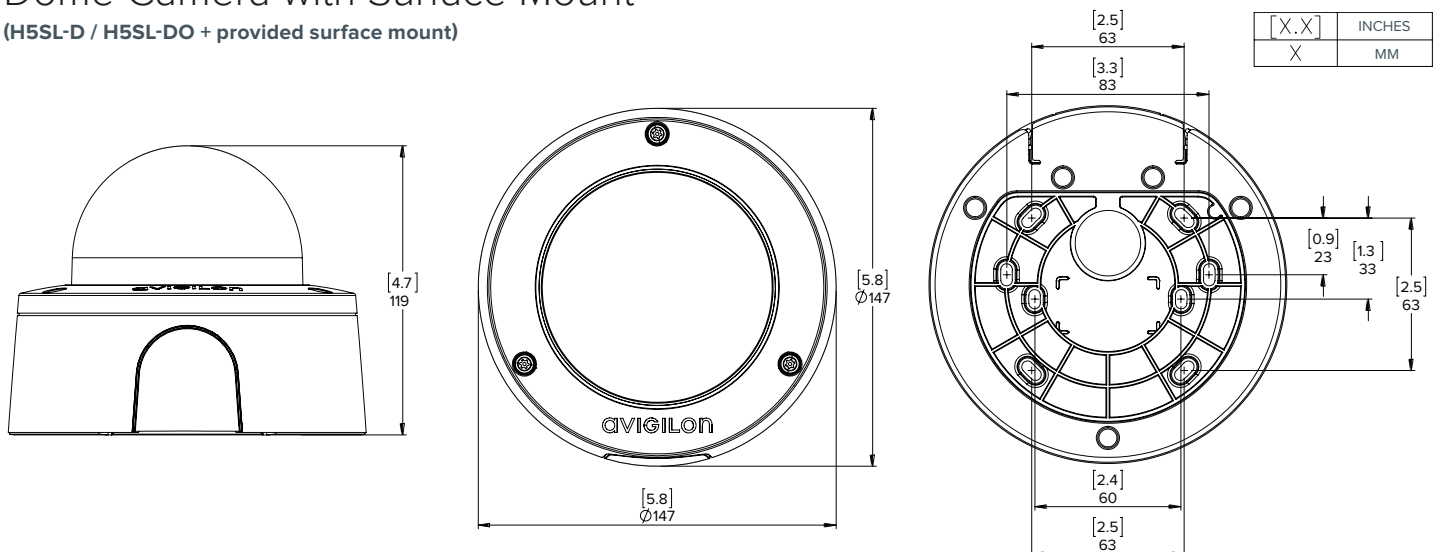
## CERTIFICATIONS

Certifications/Directives	UL, cUL, CE, ROHS, RCM, BIS	
Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC 62471	
Environmental	Bullet	IEC 62262 IK10 Impact Rating, UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating
	Outdoor Dome	IEC 62262 IK10 Impact Rating, UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating
Electromagnetic Emissions	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	
Electromagnetic Immunity	EN 55024, EN 61000-6-1	
Industrial EMC	EN 50130-4, EN 50121-4	

# Outline Dimensions

## Dome Camera with Surface Mount

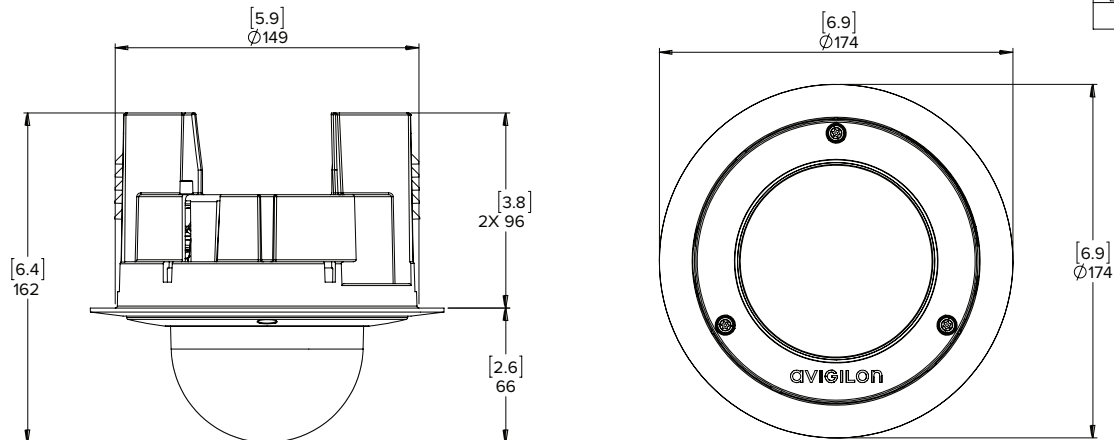
(H5SL-D / H5SL-DO + provided surface mount)



## Outline Dimensions (Con't)

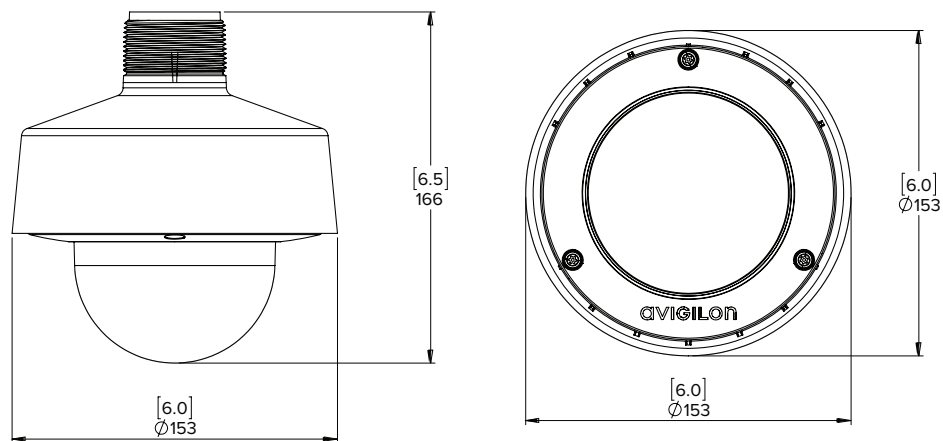
### Dome Camera with In-Ceiling Mount

(H5SL-D/H5SL-DO + H4SL-MT-DCIL)



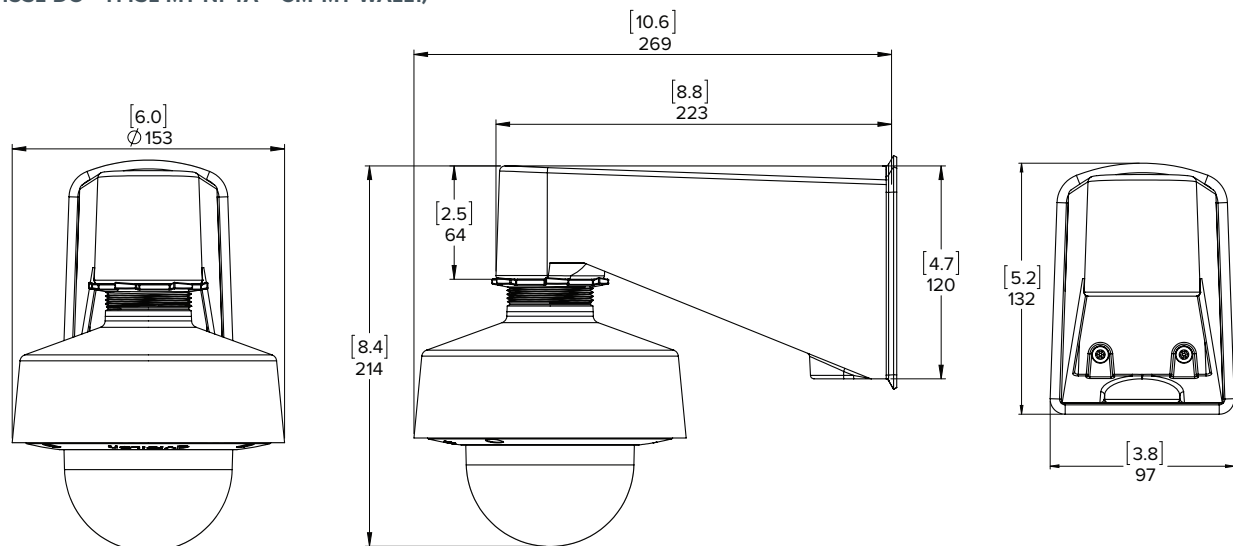
### Dome Camera with NPT Adapter

(H5SL-D/H5SL-DO + H4SL-MT-NPTA)



### Dome Camera with NPT Adapter and Pendant Wall Mount

(H5SL-D/H5SL-DO + H4SL-MT-NPTA + CM-MT-WALL1)

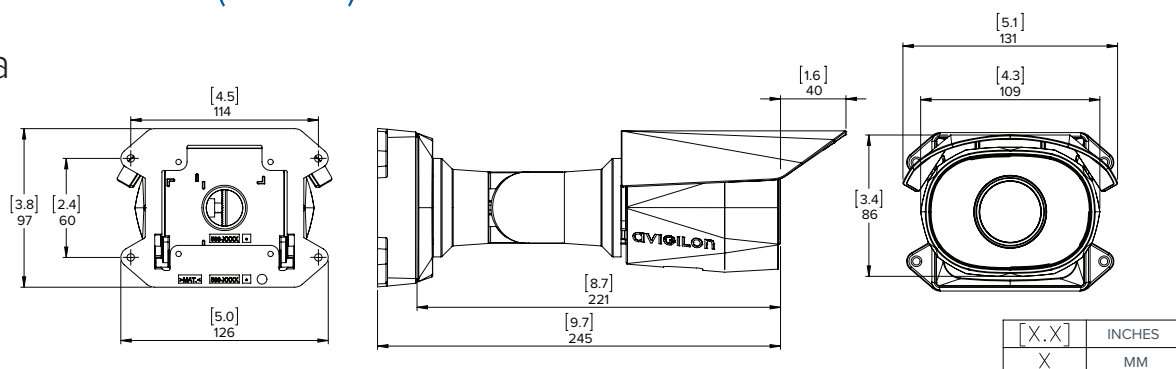


# Outline Dimensions (Con't)

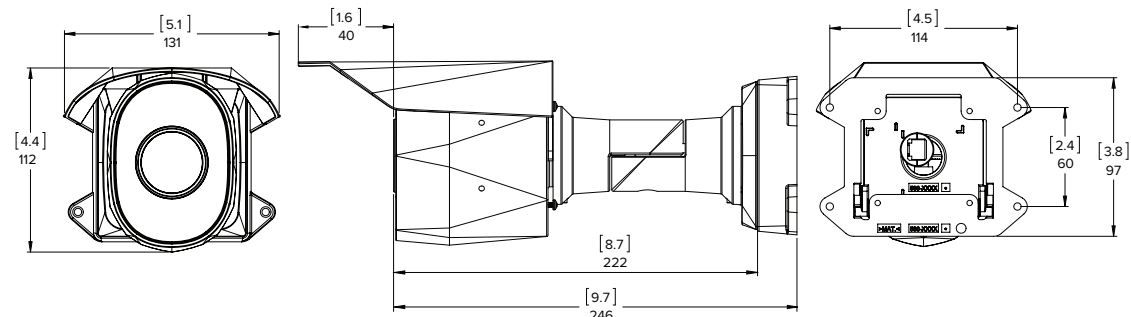
## Bullet Camera

(H5SL-BO-IR)

LANDSCAPE  
MODE

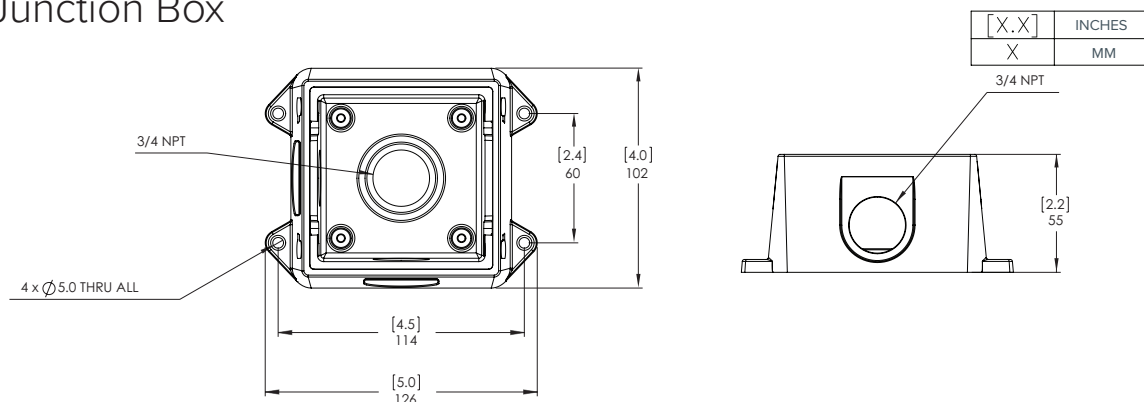


HALLWAY  
MODE



## Bullet Camera Junction Box

(H4-BO-JBOX1)



# Ordering Information (Bullet)

	MP	WDR	LightCatcher Technology	Lens	IR	IP66/IP67	HDSM SmartCodec
1.3C-H5SL-BO1-IR	1.3	✓	✓	3.1 - 8.4 mm	✓	✓	✓
2.0C-H5SL-BO1-IR	2.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
3.0C-H5SL-BO1-IR	3.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
3.0C-H5SL-BO2-IR	3.0	✓	✓	9.5 - 31 mm	✓	✓	✓
5.0C-H5SL-BO1-IR	5.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
5.0C-H5SL-BO2-IR	5.0	✓	✓	9.5 - 31 mm	✓	✓	✓

H4-BO-JBOX1	Junction box for H5SL, H4SL, and H4 HD bullet cameras
H4-MT-POLE1	Aluminum pole mounting bracket
H4-MT-CRNR1	Aluminum corner mounting bracket
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter

# Ordering Information (Dome)

The variety of mounting options for the H5SL dome camera provides maximum flexibility. All the available camera modules can be used in any of the mounting options.

## MOUNTING SCENARIO

## ORDERING INFORMATION

### SURFACE MOUNT



Order one of:

- Camera

### IN-CEILING MOUNT



Order one of:

- Camera
- H4SL-MT-DCIL1
- Optional, H4-DC-CPNL1 if ceiling panel needed

### PENDANT NPT MOUNT



Order one of:

- Camera
- H4SL-MT-NPTA1

### PENDANT WALL MOUNT



Order one of:

- Camera
- H4SL-MT-NPTA1
- CM-MT-WALL1
- Optional, H4-MT-POLE1 or H4-MT-CRNR1 if pole or corner mount needed

	MP	WDR	LightCatcher Technology	Lens	IR	IP66/IP67	HDSM SmartCodec
1.3C-H5SL-D1	1.3	✓	✓	3 - 9 mm			✓
1.3C-H5SL-D1-IR	1.3	✓	✓	3 - 9 mm	✓		✓
1.3C-H5SL-DO1-IR	1.3	✓	✓	3.1 - 8.4 mm	✓	✓	✓
2.0C-H5SL-D1	2.0	✓	✓	3 - 9 mm			✓
2.0C-H5SL-D1-IR	2.0	✓	✓	3 - 9 mm	✓		✓
2.0C-H5SL-DO1-IR	2.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
3.0C-H5SL-D1	3.0	✓	✓	3 - 9 mm			✓
3.0C-H5SL-D1-IR	3.0	✓	✓	3 - 9 mm	✓		✓
3.0C-H5SL-DO1-IR	3.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓
5.0C-H5SL-D1	5.0	✓	✓	3.1 - 8.4 mm			✓
5.0C-H5SL-D1-IR	5.0	✓	✓	3.1 - 8.4 mm	✓		✓
5.0C-H5SL-DO1-IR	5.0	✓	✓	3.1 - 8.4 mm	✓	✓	✓

H4SL-MT-DCIL1	In-ceiling mounting adapter for the H5SL and H4SL dome camera
H4SL-MT-NPTA1	NPT adapter for the H5SL and H4SL dome camera
CM-MT-WALL1	Pendant wall mount
H4-DC-CPNL1	Metal ceiling panel
H4-MT-POLE1	Aluminum pole mounting bracket
H4-MT-CRNR1	Aluminum corner mounting bracket
H4-AC-WIFI2-NA / H4-AC-WIFI2-EU	USB Wi-Fi adapter
H4SL-DD-SMOK1	Replacement outdoor smoke dome cover
H4SL-DD-CLER1	Replacement outdoor clear dome cover
H4SL-DI-SMOK1	Replacement indoor smoke dome cover
H4SL-DI-CLER1	Replacement indoor clear dome cover
H4SL-DO1-BASE	Replacement outdoor surface mount adapter
H4SL-D1-BASE	Replacement indoor surface mount adapter

# Avigilon Video Archive

225TB

488TB

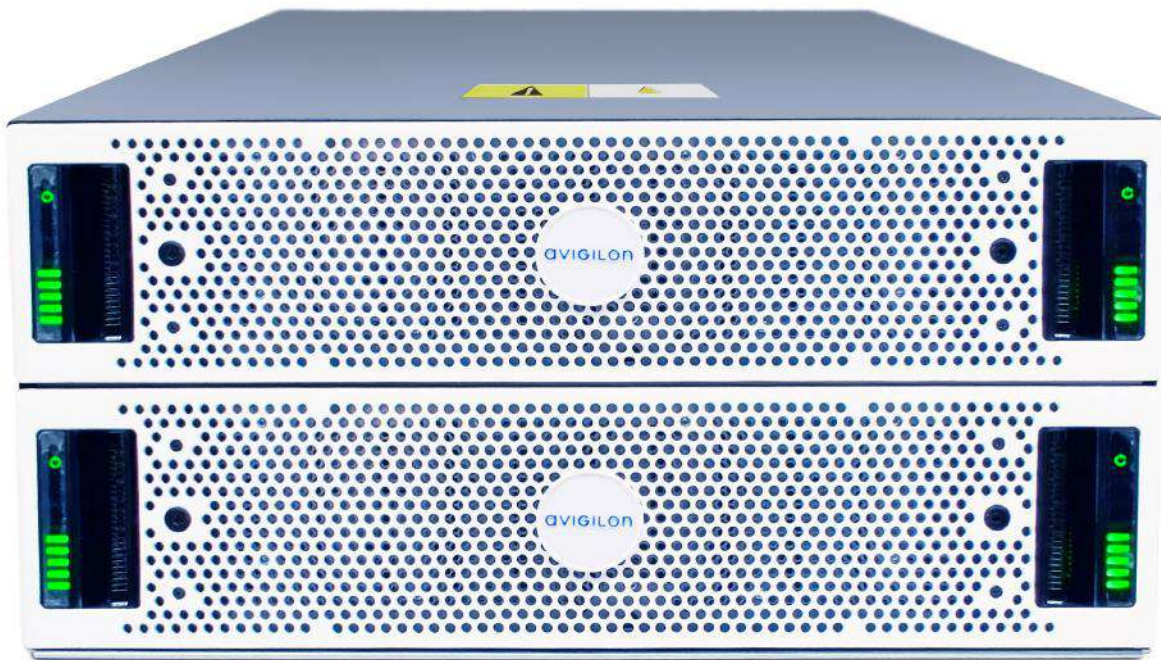
751TB

1PB

1.3PB

1.5PB

The Avigilon Video Archive is a scalable storage expansion solution that is fully integrated with Avigilon Control Center<sup>TM</sup> software and Network Video Recorders. This cost-effective technology offers an Avigilon-backed solution that helps deliver a complete, end-to-end video security platform. The Avigilon Video Archive is built on hardware technology that delivers superior reliability with no single point of failure and near zero downtime, ensuring video archives are preserved for swift on-demand retrieval and review.

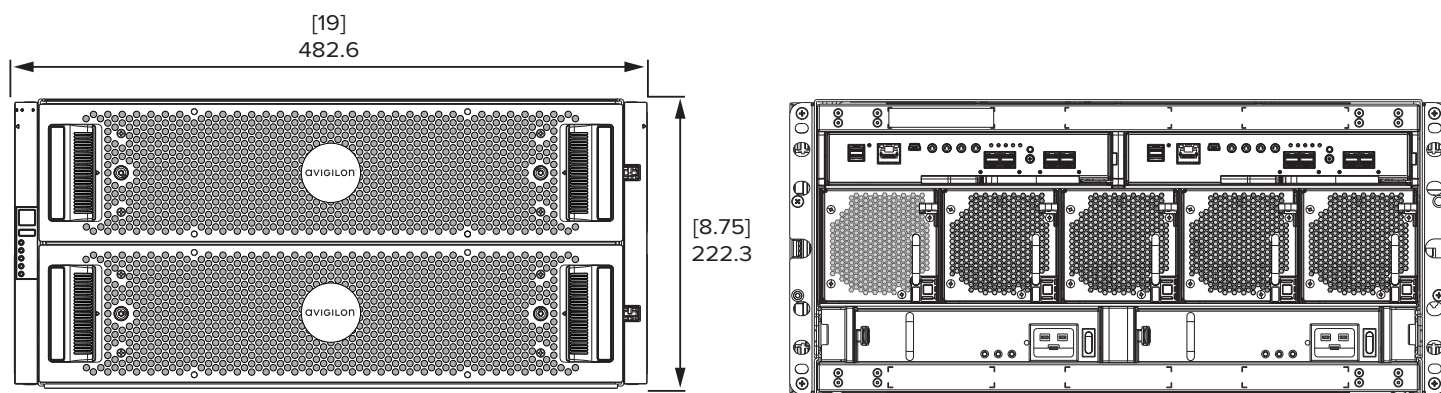


## Key Benefits

- **Pay as you grow** - Scalable from 336TB to 2PB (RAW) per Network Video Recorder with enterprise NL-SAS drives to cost-effectively grow in lock-step with your organization
- **Fully integrated with ACC and Site Health** - Simplifies management of multiple Petabytes of data and provides system health status in ACC<sup>TM</sup> dashboards
- **Maximize uptime** - Mission critical design with fully redundant architecture that eliminates any single point of failure
- **Prevent data loss** - Minimize risk of data loss and non-compliance via erasure coding's fast rebuild capability, vastly outperforming RAID alternatives
- **Avigilon-backed Support** - Up to 5 years of onsite support (Next business day) with optional "keep-your-drive" warranty that ensures no drive ever leaves your premises



# Dimensions



# Specifications

SYSTEM	Form Factor	5U Rackmount
	Maximum Storage	2 PB Raw or 1.5PB usable
	Drive Bays	84 × 3.5" Bays
	Hard Drives Supported	Nearline SAS
	Max Number of NVRs Connected	4 per Head Unit
	Supported NVRs	NVR Standard and Premium Models
	Supported Operating Systems	Windows Server 2016
	Connectivity	Redundant Path 10Gb iSCSI
	Ports	8× SFP+ and 2 × 12Gb SAS
	Data Protection	Erasure Coding
	Controller	Dual Hot Swappable Redundant Storage Controllers
	Expansion Options	Internal disk packs and one Direct Attach SAS Expansion Chassis with up to 84 drives
	Warranty	3 Years Next Business Day on-site support. Extendable to 5 years. Optional Keep Your Drive Warranty available.
MECHANICAL	Power	200~240VAC , 2200W Dual Redundant
	Operating Temperature	5°C ~ 40°C (41°F~104°F)
	Operating Humidity	10 - 80% (non-condensing)
	Dimensions (W×D×H)	482.6mm × 892.2mm × 222.3mm; 19" × 35.12" × 8.75"
	Maximum Weight	135 kg; 298 lb
CERTIFICATIONS	Certifications/Directives	UL, cUL, CE, ROHS, RCM, NOM, BIS, BSMI, EAC, KC, NRCS, VCCI
	Safety	UL/CSA 60950-1, IEC/EN 60950-1
	Electromagnetic Emissions	FCC Part 15 Subpart B, IC ICES-003, EN 55032, EN 61000-3-2, EN 61000-3-3
	Electromagnetic Immunity	EN 55024
ORDERING INFORMATION	PRODUCTS	
	AVA-HED1-225TB	Avigilon Video Archive Head Unit, 225TB, 5U
	AVA-HED1-488TB	Avigilon Video Archive Head Unit, 488TB, 5U
	AVA-HED1-751TB	Avigilon Video Archive Head Unit, 751TB, 5U
	AVA-EXP1-263TB	Avigilon Video Archive Expansion Unit, 263TB, 5U
	AVA-EXP1-526TB	Avigilon Video Archive Expansion Unit, 526TB, 5U
	AVA-EXP1-789TB	Avigilon Video Archive Expansion Unit, 789TB, 5U
	AVA-HDD1-263TB	Avigilon Video Archive, Expansion Disk Pack, 263TB
	ACCESSORIES	
	AVA-HED1-NVR4-CONNECT	Avigilon Video Archive, NVR4 Connectivity Kit
	HD-NVR4-STD-2NDCPU	NVR4 Standard, 2nd CPU Kit

# 4-Port H.264 Analog Video Encoder with Audio Support

Avigilon offers a broad range of high definition cameras – from 1 – 5 MP and 4 – 7K (based on horizontal resolution) – and are available in a variety of formats, including dome, panoramic and fixed. Whether it's a small storefront that requires a few cameras or a large complex system requiring complete coverage of numerous areas, you can trust that you're getting an exceptional solution for your security needs.

The innovative H.264 analog video encoder is just one way Avigilon can help provide the very best monitoring and protection.



Avigilon analog video encoders minimize bandwidth and storage requirements while capturing high-quality surveillance footage (in full resolution of up to 30 images per second per analog camera) for greater coverage and enhanced overall protection.

Using standard network equipment, the analog video encoder seamlessly integrates with the Avigilon Control Center system, Avigilon Blue cloud platform, and NVRs to create a network-based surveillance solution with unmatched performance, ease of use, and ease of installation. Plus they also feature 3D motion-adaptive de-interlacing for sharper, more accurate video.

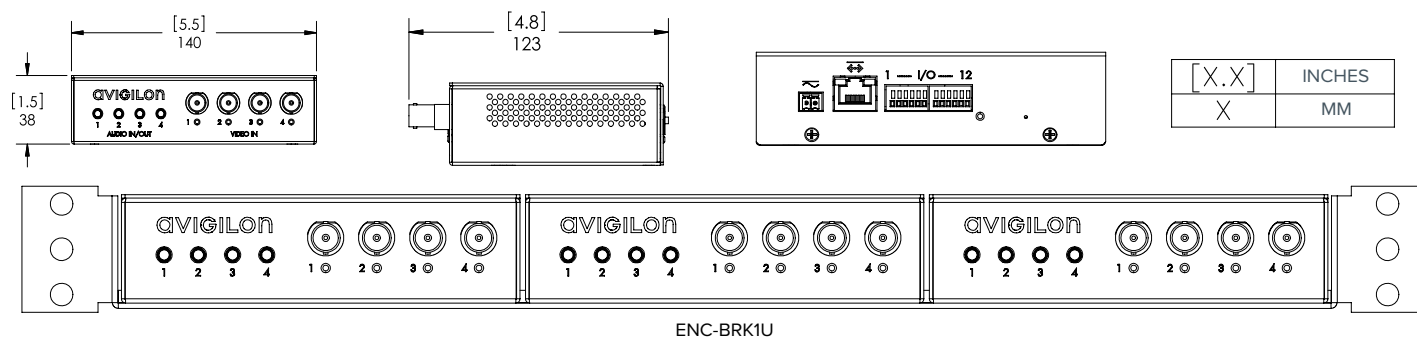
## KEY FEATURES

4 video channels
Max resolution 720 x 480 (NTSC) or 720 x 576 (PAL)
30 images per second from each port
H.264 and Motion JPEG compression
ONVIF compliant API
Motion adaptive 3D deinterlacing
Support for PTZ and dome cameras via RS-485 interface
Up to 4 privacy zones available per channel
4 audio input channels
4 audio output channels
External I/O terminals
Power over Ethernet, 24 VAC or 12 VDC power input
Automatically connects to Avigilon Control Center NVMS and Avigilon Blue cloud platform
Rack mount kit allows 3 encoders in 1U of rack space

# Specifications

ENCODER	Video Channels	4							
	Video Standard	NTSC; PAL							
	Video Format	Composite Video 1.0 Vpp with 75 Ohm selectable termination							
	Video Input	BNC connection							
	Max Resolution (per channel)	720 (H) x 480 (V) NTSC; 720 (H) x 576 (V) PAL							
	Image Rate (per channel)	30 NTSC at max. resolution; 25 PAL							
	Image Compression Method	H.264 (MPEG-4 Part 10/AVC); Motion JPEG							
	Motion Detection	Selectable sensitivity and threshold							
	Privacy Zones (per channel)	Up to 4 zones							
	Audio Input Channels	4							
	Audio Output Channels	4							
	Audio Compression Method	G.711 PCM 8kHz							
	Audio Input/Output	Line input/output, I/O mini-jack (3.5 mm)							
	PTZ Control	RS-485 interface							
	PTZ Protocols	American Dynamics Sensormatic, AXSYS, AXSYS DCU, Ernitec ERNA, Honeywell Diamond, Kalatel ASCII, Pelco D, Pelco P, TEB Ligne, Vicon extended, Vicon normal, Videotec Legacy, Videotec MACRO							
	External I/O Terminals	4 Alarm In, 4 Alarm Out							
NETWORK	Network	100BASE-TX							
	Cabling Type	CAT5							
	Connector	RJ-45							
	API	ONVIF compliance version 1.02, 2.00 (www.onvif.org)							
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication.							
	Protocol	IPv6, 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							
MECHANICAL	Dimensions (LxWxH)	140 mm x 123 mm x 38 mm (5.5" x 4.8" x 1.5")							
	Weight	0.62 kg (1.4 lbs)							
ELECTRICAL	Power Source	VDC: 12 V VAC: 24 V PoE: IEEE802.3af Class 3 compliant							
	Power Consumption	8 W							
	Power Connector	2-pin terminal block							
ENVIRONMENTAL	Operating Temperature	12 VDC: -10°C to 48°C (14°F to 118°F); 24 VAC or POE: -10°C to 50°C (14°F to 122°F)							
	Storage Temperature	-10 °C to 70 °C (14 °F to 158 °F)							
	Humidity	20 - 80% Relative humidity (non-condensing)							
CERTIFICATIONS	Certifications/Directives	UL	cUL	CE	ROHS	WEEE	RCM	KC	EAC
	Safety	UL 60950-1		CSA 60950-1		IEC/EN 60950-1			
	Electromagnetic Emissions	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 KN 22
	Electromagnetic Immunity	EN 55024				EN 61000-6-1	KN 24		

## Outline Dimensions



## Ordering Information

ENC-4P-H264	4-Port H.264 Video Encoder with 4 Audio Inputs and 4 Audio Outputs
ENC-BRK1U	1U EIA (19") Rack Mountable Bracket for 3 ENC-4P-H264