

# H4 Multisensor Camera Line

The H4 Multisensor camera line combines Avigilon self-learning video analytics with exceptional coverage, featuring 3 or 4 individually configurable camera sensors that can be positioned to monitor virtually any area. With up to 32 MP effective resolution, the H4 Multisensor can provide the image quality needed to cover larger areas with excellent detail. Combining support for H.265 video compression along with Avigilon’s HDSM SmartCodec™ technology, the H4 Multisensor camera has the ability to maintain high-image quality with less bandwidth and storage requirements.



With self-learning video analytics on board, the H4 Multisensor camera can detect and differentiate people and vehicles from regular motion, and notify operators of potentially critical events that may need further investigation. Featuring wide dynamic range, Avigilon LightCatcher™ technology and the option to add content adaptive IR to outdoor models, the H4 Multisensor camera can provide exceptional image quality in challenging lighting conditions.

## KEY FEATURES AND BENEFITS

- Self-learning video analytics on all sensors
- Increased range of sensor positioning
- High efficiency video encoding using H.265
- Up to 32 MP total resolution
- Wide Dynamic Range and LightCatcher technology on all resolutions
- IP66 and IK10 rated on outdoor models
- Avigilon’s HDSM SmartCodec technology
- Content Adaptive IR Technology up to 30m (98ft)
- Interchangeable Camera Mounts

	3-Sensor Model			4-Sensor Model		
Total Resolution	9 MP	15 MP	24 MP	12 MP	20 MP	32 MP
Max Coverage	180°–270°			360°		

# Specifications

		3.0 MP	5.0 MP	4K (8.0 MP)	
<b>IMAGE PERFORMANCE</b>  (per image sensor)	<b>Image Sensor</b>	1/2.8" progressive scan CMOS	1/2.8" progressive scan CMOS	1/2.5" progressive scan CMOS	
	<b>Active Pixels</b>	2048 (H) x 1536 (V)	2592 x 1944	3840 x 2160	
	3 x image sensor, max resolution	6144 (H) x 1536 (V)	7776 x 1944	11520 x 2160	
	4 x image sensor, max resolution	8192 (H) x 1536 (V)	10368 x 1944	15360 x 2160	
	Aspect ratio	4:3	4:3	16:9	
	IR Illumination - Optional (high power 850 nm LEDs)	30m (98 ft) maximum distance at 0 lux			
	Minimum Illumination	2.8mm: 0.025 lux (F1.2) in color mode 0.005 lux (F1.2) in mono mode 0 lux with optional IR illuminator 4mm: 0.05 lux (F1.6) in color mode 0.010 lux (F1.6) in mono mode 0 lux with optional IR illuminator		0.2 lux (F1.8) in color mode 0.04 lux (F1.8) in mono mode 0 lux with optional IR illuminator	
	Dynamic Range	100 dB, true WDR, dual exposure			
	3D Noise Reduction Filter	Yes	Yes	Yes	
	<b>Image Rate—Analytics Enabled on All Sensors</b>				
	3x Image Sensor (60 Hz/50 Hz)	24 / 25 fps	15 / 17 fps	12 / 13 fps	
	4x Image Sensor (60 Hz/50 Hz)	20 / 20 fps	13 / 13 fps	8 / 8 fps	
<b>Image Rate—High Framerate Mode</b>					
3x Image Sensor (60 Hz/50 Hz)	30 / 25 fps	20 / 20 fps	15 / 14 fps		
4x Image Sensor (60 Hz/50 Hz)	20 / 20 fps	15 / 14 fps	10 / 10 fps		
<b>LENS</b>  (per image sensor)	Lens and Horizontal Field of View	2.8mm f1.2 – 103° 4mm f1.6 – 72° Remote focus	2.8mm f1.2 – 103° 4mm f1.6 – 72° Remote focus	4mm f1.8 – 101° 5.2mm f1.8 – 70° Remote focus	
	<b>IMAGE CONTROL</b>				
	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	Selectable sensitivity and threshold				
Electronic Shutter Control	Automatic, Manual (1/8 to 1/8000 sec)				
Iris Control	Fixed				
Day/Night Control	Automatic, Manual				
Flicker Control	60 Hz, 50 Hz				
White Balance	Automatic, Manual				
Backlight Compensation	Adjustable				
Privacy Zones	Up to 64 zones				
Audio Compression Method	G.711 PCM 8 kHz				
Audio Input/Output	Line level input and output				
External I/O Terminals	Alarm In, Alarm Out				
<b>NETWORK</b>	Network	Gigabit Ethernet, 1000BASE-TX			
	Cabling Type	CAT5E			
	Connector	RJ-45			
	API	ONVIF® compliance Profile S and 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			
	Protocol	IPv4, IPv6, 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			
	<b>PERIPHERALS</b>				
USB Port	USB 2.0				
Onboard Storage	MicroSD/microSDHC/microSDXC slot – class 10/UHS-1 or better recommended				

# Specifications

	IN-CEILING MOUNT	SURFACE MOUNT	PENDANT MOUNT	
<b>MECHANICAL</b>	<b>Dimension</b>	Ø299 mm x 163 mm (Ø11.77" x 6.42"), below mounting surface: Ø299 mm x 76 mm (Ø11.77" x 2.99")	Ø299 mm x 115 mm (11.77" x 4.53")	With wall arm: 385 mm x 262 mm x 299 mm (15.15" x 10.30" x 11.77")  With NPT adapter: Ø299 mm x 248 mm (Ø11.77" x 9.76")
	<b>Weight</b>	5.2 kg (11.5 lbs)	With IR: 7 kg (15.4 lbs) Without IR: 5.8 kg (12.8 lbs)	With wall arm and IR: 8.4 kg (18.5 lbs)  With wall arm only: 7.3 kg (16.1 lbs)  With NPTA adapter and IR: 7.8 kg (17.2 lbs)  With NPTA adapter only: 6.7 kg (14.8 lbs)
	<b>Body</b>	Aluminum, Plastic dome trim	Aluminum	Aluminum
	<b>Finish</b>	Plastic, cool grey	Powder coat, cool grey	Powder coat, cool grey
	<b>Environmental</b>	Not applicable	IK10 Impact Rating and IP66 Weather Rating	
	<b>Optional IR Illuminator Ring</b>	Not available	Optional accessory, 30m (98 ft) IR range	

<b>PER SENSOR</b>	<b>Tilt</b>	+7° to 96° from horizon
	<b>Pan</b>	+/-120° (depending on position of image sensors)
	<b>Azimuth</b>	+/-180°

<b>ELECTRICAL</b>	<b>Power Consumption</b>	26 W with 24 VDC 37 VA with 24 VAC POE+	With IR: 52 W with 24 VDC 74 VA with 24 VAC POE++ or 60W POE  Without IR: 26 W with 24 VDC 37 VA with 24 VAC POE+	With IR: 52 W with 24 VDC 74 VA with 24 VAC POE++ or 60W POE  Without IR: 26 W with 24 VDC 37 VA with 24 VAC POE+
	<b>External Power</b>	24 VDC ± 10%; 24 VAC rms ± 10%, 50 or 60Hz		
	<b>PoE</b>	25.5W PoE+, IEEE 802.3at Type 2 PoE Plus	With IR: 51W PoE++ Without IR: 25.5W PoE+, IEEE 802.3at Type 2 PoE Plus	

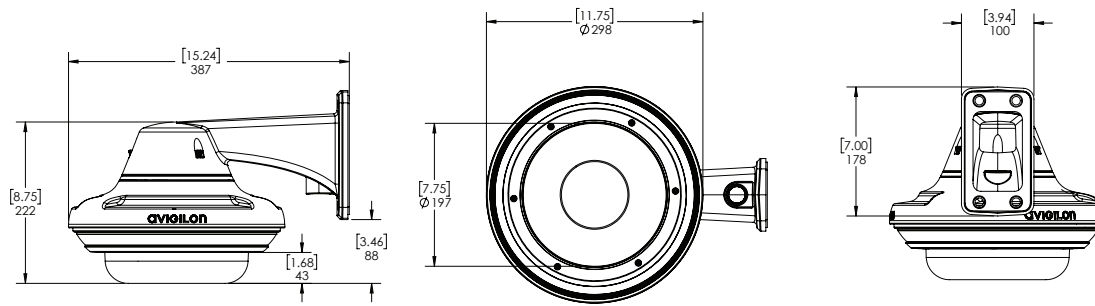
<b>ENVIRONMENTAL</b>	<b>Operating Temperature Range</b>	-10 °C (14 °F) to 50 °C (122 °F)	-40 °C (-40 °F) to 60 °C (140 °F)
	<b>Storage Temperature</b>	-10 °C to 70 °C (14 °F to 158 °F)	
	<b>Humidity</b>	0-95% non-condensing	

<b>CERTIFICATIONS</b>	<b>Certifications</b>	UL, cUL, CE, ROHS, WEEE, RCM, EAC, BIS	
	<b>Safety</b>	UL 62368-1, CSA 62368-1, IEC/EN 62368-1	
	<b>Environmental</b>	UL 2043 Plenum	UL/CSA/IEC 60950-22 IEC 60529 IP66 Rating, IK10 Impact Rating, IEC 60068-2-6 IEC 60068-2-27 Vibration and Shock
	<b>Electromagnetic Emissions</b>	FCC Part 15 Subpart B Class B, IC ICES-003 Class B, EN 55032 Class B, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 50121-4 (when used with CM-AC-FERR1 on aux power)	
	<b>Electromagnetic Immunity</b>	EN 55024, EN 61000-6-1	
	<b>Directives</b>	RoHS, Reach (SVHC), WEEE	

<b>SUPPORTED RULE BASED VIDEO ANALYTIC EVENTS (PER SENSOR)</b>	<b>Objects in Area</b>	The event is triggered when the selected object type moves into the region of interest.
	<b>Object Loitering</b>	The event is triggered when the selected object type stays within the region of interest for an extended amount of time.
	<b>Objects Crossing Beam</b>	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.
	<b>Object Appears or Enters Area</b>	The event is triggered by each object that enters the region of interest. This event can be used to count objects.
	<b>Object Not Present in Area</b>	The event is triggered when no objects are present in the region of interest.
	<b>Objects Enter Area</b>	The event is triggered when the specified number of objects have entered the region of interest.
	<b>Objects Leave Area</b>	The event is triggered when the specified number of objects have left the region of interest.
	<b>Object Stops in Area</b>	The event is triggered when an object in a region of interest stops moving for the specified threshold time.
	<b>Direction Violated</b>	The event is triggered when an object moves in the prohibited direction of travel.
	<b>Tamper Detection</b>	The event is triggered when the scene unexpectedly changes.

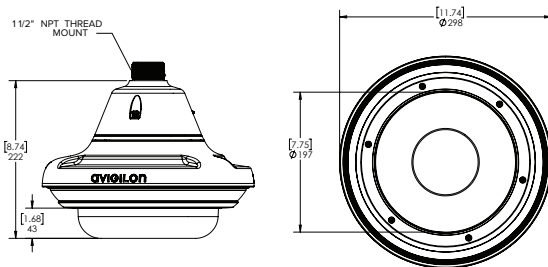
# Outline Dimensions

## Pendant Wall Mount

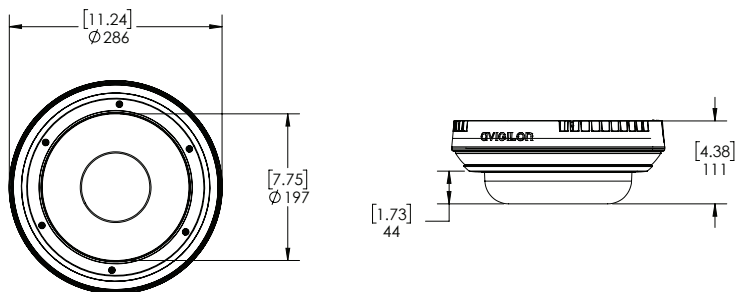


[X.X]	INCHES
X	MM

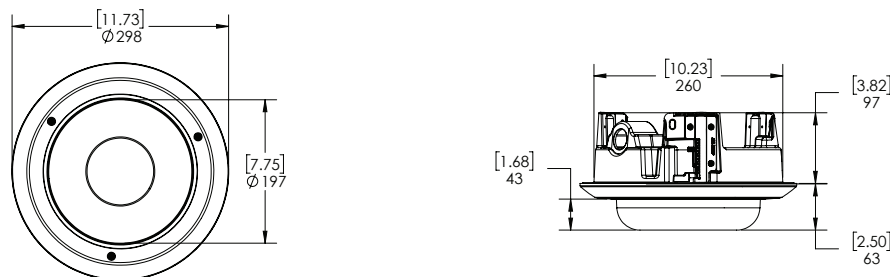
## Pendant NPT Mount



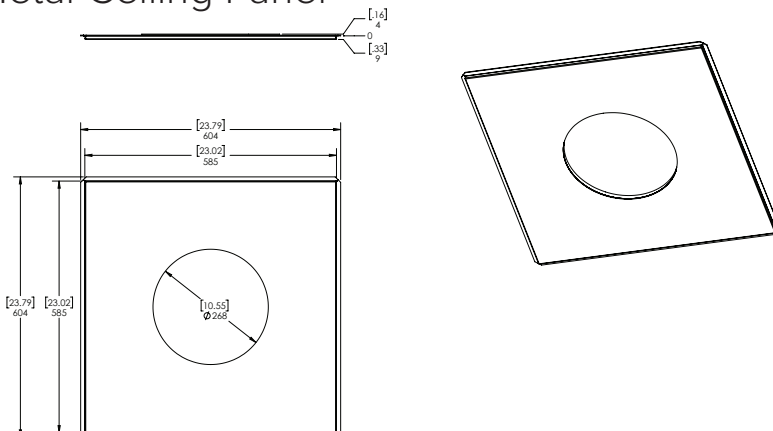
## Surface Mount



## In-ceiling Mount



## Metal Ceiling Panel



# Ordering Information

The variety of mounting options for the H4 Multisensor provides maximum flexibility. All the available camera modules can be used in any of the mounting options.

## MOUNTING SCENARIO ORDERING INFORMATION

### PENDANT WALL MOUNT



- Order one of:
- Camera module
  - H4AMH-AD-PEND1
  - H4AMH-DO-COVR1 or H4AMH-DO-COVR1-SMOKE
  - IRPTZ-MNT-WALL1
  - Optional, H4AMH-AD-IRIL

### PENDANT NPT MOUNT



- Order one of:
- Camera module
  - H4AMH-AD-PEND1
  - H4AMH-DO-COVR1 or H4AMH-DO-COVR1-SMOKE
  - IRPTZ-MNT-NPTA1
  - Optional, H4AMH-AD-IRIL1

### SURFACE MOUNT



- Order one of:
- Camera module
  - H4AMH-AD-DOME1
  - H4AMH-DO-COVR1 or H4AMH-DO-COVR1-SMOKE
  - Optional, H4AMH-AD-IRIL1

### IN-CEILING MOUNT



- Order one of:
- Camera module
  - H4AMH-AD-CEIL1
  - H4AMH-DC-COVR1 or H4AMH-DC-COVR1-SMOKE
  - Optional, H4AMH-DC-CPNL1 if ceiling panel needed

## Camera Modules

With the modular design of the H4 Multisensor, any camera module can be paired with any mounting adapter for maximum versatility and optimal installation. Each camera module must be ordered with a matching mounting adapter and dome cover.

DISPLAY PART NUMBER	DESCRIPTION
9C-H4A-3MH-270	3×3 MP, WDR, LightCatcher, 2.8mm, Camera Only
9C-H4A-3MH-180	3×3 MP, WDR, LightCatcher, 4mm, Camera Only
15C-H4A-3MH-270	3×5 MP, WDR, LightCatcher, 2.8mm, Camera Only
15C-H4A-3MH-180	3×5 MP, WDR, LightCatcher, 4mm, Camera Only
24C-H4A-3MH-270	3×4K (8 MP), WDR, LightCatcher, 4mm, Camera Only
24C-H4A-3MH-180	3×4K (8 MP), WDR, LightCatcher, 5.2mm, Camera Only
12C-H4A-4MH-360	4×3 MP, WDR, LightCatcher, 2.8mm, Camera Only
20C-H4A-4MH-360	4×5 MP, WDR, LightCatcher, 2.8mm, Camera Only
32C-H4A-4MH-360	4×4K (8 MP), WDR, LightCatcher, 4mm, Camera Only

## Mounting Adapters and Dome Covers

The H4 Multisensor modular design provides pendant, surface, or in ceiling mounting adapters and a choice of two dome covers compatible with all the H4 Multisensor camera modules.

DISPLAY PART NUMBER	DESCRIPTION
H4AMH-AD-DOME1	Outdoor surface mount adapter, must order either a H4AMH-DO-COVR1 or H4AMH-DO-COVR1-SMOKE.
H4AMH-AD-PEND1	Outdoor pendant mount adapter, must order one of IRPTZ-MNT-WALL1 or IRPTZ-MNT-NPTA1 and one of H4AMH-DO-COVR1 or H4AMH-DO-COVR1-SMOKE.
IRPTZ-MNT-WALL1	Pendant wall arm adapter, for use with H4AMH-AD-PEND1 or H4 IRPTZ.
IRPTZ-MNT-NPTA1	Pendant NPT adapter for use with H4AMH-AD-PEND1 or H4 IRPTZ.
H4-MT-POLE1	Aluminum pole mounting bracket for H4 pendant style cameras or H4 HD bullet cameras.
H4-MT-CRNR1	Aluminum corner mounting bracket for H4 pendant style cameras or H4 HD bullet cameras.
H4AMH-AD-CEIL1	In-ceiling adapter, must order either a H4AMH-DC-COVR1 or H4AMH-DC-COVR1-SMOKE.
H4AMH-DO-COVR1	Dome bubble and cover, for outdoor surface mount or pendant mount, clear.
H4AMH-DO-COVR1-SMOKE	Dome bubble and cover, for outdoor surface mount or pendant mount, smoked. Not recommended for lowlight applications.
H4AMH-DC-COVR1	Dome bubble and cover, for in-ceiling mount, clear.
H4AMH-DC-COVR1-SMOKE	Dome bubble and cover, for in-ceiling mount, smoked. Not recommended for lowlight applications.
H4AMH-DC-CPNL1	Metal ceiling panel.

## Optional IR Illuminator

The optional IR Illuminator is available for the H4 Multisensor when mounted in a pendant or surface mount adapter.

DISPLAY PART NUMBER	DESCRIPTION
H4AMH-AD-IRIL1	Optional IR illuminator ring, up to 30m (100ft), for use with H4AMH-DO-COVR1.

## Optional Injectors and Switches

DISPLAY PART NUMBER	DESCRIPTION
ES-PS-S4	Managed switch, 5 port, Outdoor IP66, -40°C (-40°F) to 50°C (122°C), Gigabit Ethernet, AC power input. 1x SFP uplink and 4 port RJ45.  Maximum PoE power allocation: Up to 4 ports of PoE+ each, or 2 ports of 60W PoE each. In 60W PoE mode, compatible with H4 PTZ, H4 IR PTZ and H4 Multisensor.
ES-PS-MNT-POLE1	Pole mount bracket for ES-PS-S4 switch.
POE-INJ2-60W-NA	Indoor single port Gigabit PoE++ 60W, North American power cord included. May also be used in European Union, Japan, Australia, New Zealand, Mexico, China, South Korea, Russia, Argentina, Saudi Arabia, Kuwait, UAE and Brazil.  Temperature range of the PoE injector is -10 °C to +45 °C (14 °F to 113 °F).  When used with the H4 IR PTZ, the camera will operate in a reduced temperature range from -10 °C to +50 °C (14 °F to 122 °F).
POE-INJ2-PLUS	Indoor single port POE+ injector. Injector operational temperature range -20°C to +40°C (-4°F to 104°F).

## Miscellaneous Accessories

DISPLAY PART NUMBER	DESCRIPTION
CM-AC-FERR1	Ferrite clamp for use with aux power cable when meeting EN 50121-4 requirements. Pack of 5.