

# H4 MULTISENSOR CAMERA LINE

9 MP

12 MP

15 MP

20 MP

24 MP

32 MP

Provides exceptional scene coverage and high image detail with 3 or 4 individually configurable camera sensors that can be positioned to monitor virtually any area. Delivers broad scene coverage with high image detail up to 32 MP total resolution and uses H.265 compression technology to significantly reduce 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.



## FEATURES



### SELF-LEARNING VIDEO ANALYTICS

Exceptional efficiency when monitoring and reviewing video with excellent coverage from a single camera.



### LIGHTCATCHER™ TECHNOLOGY

Offers excellent image detail in low-light settings.



### ONVIF® COMPLIANT

Native ONVIF® Profile S and Profile T compliance allows easy integration with existing ONVIF infrastructures.



### H.265 & HDSM SMARTCODEC™ TECHNOLOGY

Combines compression technologies to maximize bandwidth and storage.



### CONTENT ADAPTIVE IR

Adjusts IR beam width and illumination settings based on scene conditions to help maximize image quality.



### WIDE DYNAMIC RANGE

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

ONVIF is a trademark of Onvif, Inc.

# SPECIFICATIONS

IMAGE PERFORMANCE	3.0 MP	5.0 MP	4K (8.0 MP)
Image Sensor	1/2.8" progressive scan CMOS		1/2.5" progressive scan CMOS
Active Pixels	2048 (H) x 1536 (V)	2592 x 1944	3840 x 2160
3 x Image Sensor, Max Resolution (per image sensor)	6144 (H) x 1536 (V)	7776 x 1944	11520 x 2160
4 x Image Sensor, Max Resolution (per image sensor)	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)	30 m (98 ft) maximum distance at 0 lux when camera is mounted at 4 m (13 ft) off the ground		
Minimum Illumination	2.8 mm: 0.025 lux (F1.2) in color mode 0.005 lux (F1.2) in mono mode 0 lux with optional IR illuminator  4 mm: 0.05 lux (F1.6) in color mode 0.010 lux (F1.6) in mono mode 0 lux with optional IR illuminator		0.02 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		
<b>Image Rate-Analytics Enabled on All Sensors:</b>			
3 x Image Sensor (60 Hz, 50 Hz)	24 / 25 fps	15 / 17 fps	12 / 13 fps
4 x Image Sensor (60 Hz, 50 Hz)	20 / 20 fps	13 / 13 fps	8 / 8 fps
<b>Image Rate-High Framerate Mode:</b>			
3 x Image Sensor (60 Hz, 50 Hz)	30 / 25 fps	20 / 20 fps	15 / 14 fps
4 x Image Sensor (60 Hz, 50 Hz)	20 / 20 fps	15 / 14 fps	10 / 10 fps
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	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		
LENS (PER IMAGE SENSOR)	3.0 MP	5.0 MP	4K (8.0 MP)
Lens and Horizontal Field of View	2.8 mm F1.2 - 103° 4 mm F1.6 - 72° Remote Focus	2.8 mm F1.2 - 103° 4 mm F1.6 - 72° Remote Focus	4 mm F1.8 - 101° 5.2 mm F1.8 - 70° Remote Focus

NETWORK	
Network	Gigabit Ethernet, 1000BASE-TX
Cabling Type	CAT5E
Connector	RJ-45
API	ONVIF® compliance 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
Protocol	IPv4, IPv6, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP, HSTS
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 - video speed class card required. Class V10 or better recommended.

ELECTRICAL	IN-CEILING	SURFACE MOUNT	PENDANT MOUNT
Power Consumption	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 60 W 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 60 W PoE*  Without IR: 26 W with 24 VDC 37 VA with 24 VAC PoE+
External Power	24 VDC $\pm$ 10 %; 24 VAC rms $\pm$ 10 %, 50 or 60 Hz		
PoE*	25.5 W PoE+, IEEE 802.3at Type 2 PoE Plus	With IR: High Power 51 W PoE++* Without IR: 25.5 W PoE+, IEEE, 802.3at Type 2 PoE Plus	

MECHANICAL	IN-CEILING	SURFACE MOUNT	PENDANT MOUNT
Dimension	299 mm x 163 mm (11.77" x 6.42"), below mounting surface: 299 mm x 76 mm (11.77" x 2.99")	299 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: 299 mm x 248 mm (11.77" x 9.76")
Weight	5.2 kg (11.5 lbs)	With IR: 7 kg (15.4 lbs) Without IR: 5.8 kg (12.8 kg)	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)
Body	Aluminum, Plastic dome trim	Aluminum	Aluminum
Finish	Plastic, Injection Molded, Close to RAL9002	Cast, Powder Coated, Close to RAL9002	Cast, Powder Coated, Close to RAL9002
Environmental	Not applicable	IK10 Impact Rating and IP66 Weather Rating	
Optional IR Illuminator Ring	Not available	Optional accessory, 30 m (98 ft) IR range	

ENVIRONMENTAL	IN-CEILING	SURFACE MOUNT	PENDANT MOUNT	
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)	-40 °C to +60 °C (40 °F to 140 °F)		
Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)			
Humidity	0 - 95% non-condensing			

PER SENSOR	
Tilt	+7° to 96° from horizon

PER SENSOR	
Pan	+/-120° (depending on position of image sensors)
Azimuth	+/-180°

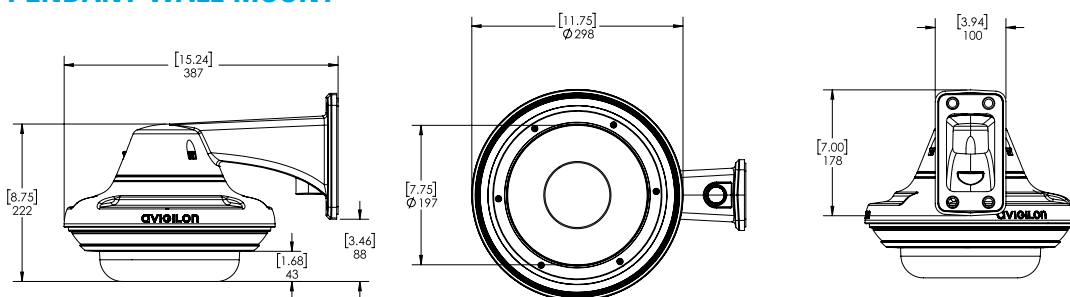
\*High power PoE may not be compatible with all switches or injectors. High power PoE is compatible with Cisco® UPoE, up to 60 W over 4 pairs, or with the high PoE products listed in the **Accessories** section. Contact Avigilon sales or Avigilon technical support for more information.

CERTIFICATIONS	IN-CEILING	SURFACE MOUNT	PENDANT MOUNT
Certifications/Directives	UL, cUL, CE, ROHS, WEEE, RCM, EAC, BIS, KC, UKCA, NOM		
Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1		
Environmental	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	
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, EN 50121-4 (when used with CM-AC-FERR1 on aux power)		
Directives	RoHS, Reach (SVHC), WEEE		

SUPPORTED RULE BASED VIDEO ANALYTIC 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 stays within the region of interest 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 in a region of interest 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.

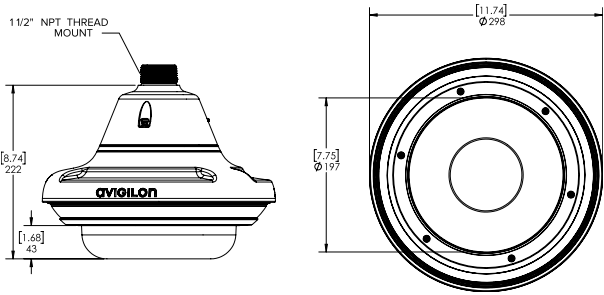
## OUTLINE DIMENSIONS

### PENDANT WALL MOUNT

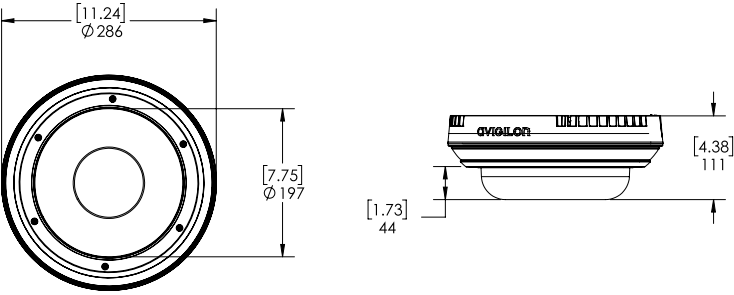


[X.X]	INCHES
X	MM

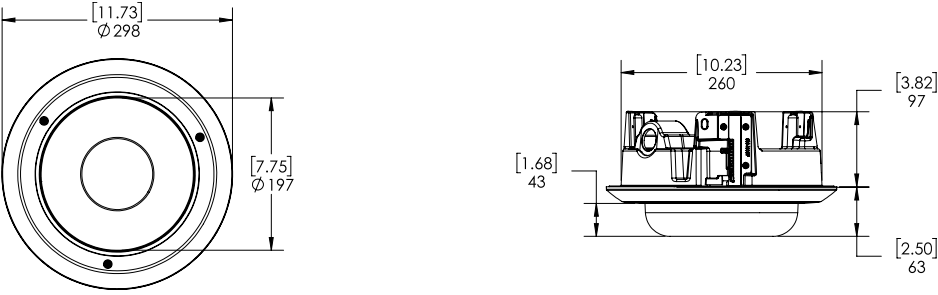
PENDANT NTP MOUNT



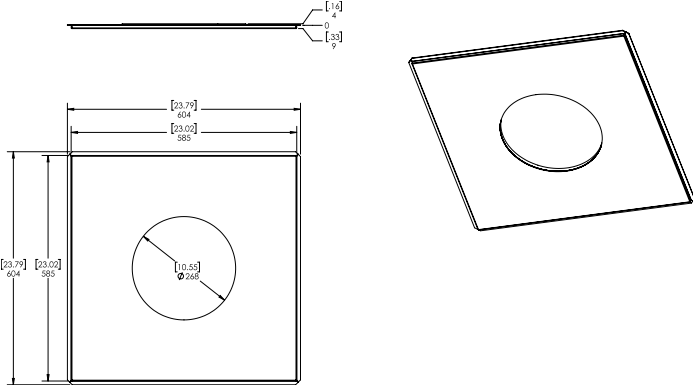
SURFACE MOUNT



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: <ul style="list-style-type: none"> <li>• Camera module</li> <li>• H4AMH-AD-PEND1</li> <li>• H4AMH-DO-COVR1 or H4AMH-DO-COVR1-SMOKE</li> <li>• IRPTZ-MNT-WALL1</li> <li>• Optional, H4AMH-AD-IRIL</li> </ul>
PENDANT NPT MOUNT		Order one of: <ul style="list-style-type: none"> <li>• Camera module</li> <li>• H4AMH-AD-PEND1</li> <li>• H4AMH-DO-COVR1 or H4AMH-DO-COVR1-SMOKE</li> <li>• IRPTZ-MNT-NPTA1</li> <li>• Optional, H4AMH-AD-IRIL1</li> </ul>
SURFACE MOUNT		Order one of: <ul style="list-style-type: none"> <li>• Camera module</li> <li>• H4AMH-AD-DOME1</li> <li>• H4AMH-DO-COVR1 or H4AMH-DO-COVR1-SMOKE</li> <li>• Optional, H4AMH-AD-IRIL1</li> </ul>
IN-CEILING MOUNT		Order one of: <ul style="list-style-type: none"> <li>• Camera module</li> <li>• H4AMH-AD-CEIL1</li> <li>• H4AMH-DC-COVR1 or H4AMH-DC-COVR1-SMOKE</li> <li>• Optional, H4AMH-DC-CPNL1 if ceiling panel is needed</li> </ul>

## 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	3x3 MP, WDR, LightCatcher, 2.8 mm, Camera Only
9C-H4A-3MH-180	3x3 MP, WDR, LightCatcher, 4 mm, Camera Only
15C-H4A-3MH-270	3x5 MP, WDR, LightCatcher, 2.8 mm, Camera Only
15C-H4A-3MH-180	3x5 MP, WDR, LightCatcher, 4 mm, Camera Only
24C-H4A-3MH-270	3x4K (8 MP), WDR, LightCatcher, 4 mm, Camera Only
24C-H4A-3MH-180	3x4K (8 MP), WDR, LightCatcher, 5.2 mm, Camera Only
12C-H4A-4MH-360	4x3 MP, WDR, LightCatcher, 2.8 mm, Camera Only
20C-H4A-4MH-360	4x5 MP, WDR, LightCatcher, 2.8 mm, Camera Only
32C-H4A-4MH-360	4x4K (8 MP), WDR, LightCatcher, 4 mm, 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-DOCOVR1- SMOKE.
H4AMH-AD-PEND1	Outdoor pendant mount adapter, must order one of IRPTZ-MNT-WALL1 or IRPTZ-MNTNPTA1 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 30 m (100 ft), 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 60 W PoE each. In 60 W 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++ 60 W, 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).
POE-INJ2-PLUS	Indoor single port PoE+ injector. Injector operational temperature range -20 °C to +40 °C (-4 °F to 104 °F).

## OPTIONAL CAMERA LICENSES AND 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.

# SUPPORT

Learn more and find additional documentation at [avigilon.com](https://avigilon.com) or email [sales@avigilon.com](mailto:sales@avigilon.com) for specific product support.



Oct 2021 | Rev 9

© 2021, Motorola Solutions, Inc. All rights reserved. MOTOROLA, MOTO, MOTOROLA SOLUTIONS, and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. AVIGILON, the AVIGILON logo, AVIGILON CONTROL CENTER, ACC, HDSM SmartCodec and LIGHTCATCHER are trademarks of Avigilon Corporation. The absence of the symbols ™ and ® in proximity to each trademark in this document or at all is not a disclaimer of ownership of the related trademark. All other trademarks are the property of their respective owners.

[sales@avigilon.com](mailto:sales@avigilon.com) | [avigilon.com](https://avigilon.com)