H4 HD Camera with Self-Learning Analytics

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 H4 HD camera is just one way Avigilon can help provide effective monitoring and protection.

Embedded with self-learning video analytics, the H4 HD cameras seamlessly integrate with Avigilon Control Center (ACC)™, allowing security personnel to respond proactively and mitigate an incident before damage is done. The H4 HD camera features an integrated lens for remote focus and zoom control, and is ONVIF compliant for easy integration. It operates on the Avigilon H4 platform, providing enhanced HDSM™ software features, triple Exposure Ultra-Wide Dynamic Range (WDR) and patented LightCatcher™ technology ensuring you receive excellent image detail in areas where lighting is less than ideal. P-Iris control also allows the camera to automatically set its iris position to enhance image quality in all lighting conditions. Onboard storage capabilities let you manage storage directly on the camera using a standard SD memory card. This camera is extremely versatile and can work in almost any location, including banks, schools, retail outlets, municipal grounds and buildings, hotels, bars and restaurants.

KEY FEATURES

1-5 megapixel and 4K Ultra HD (8 MP) resolution
Patented Advanced Video Pattern Detection and Teach by Example Technology
Self-learning video analytics
Patented High Definition Stream Management (HDSM)™ Technology
Available with 3-9 mm F1.3, 4.3-8 mm F1.8, 4.7-84.6 mm F1.6, or 9-22 mm F1.6 P-Iris lens with remote focus and zoom
Wifi camera configuration support
Avigilon LightCatcher technology provides exceptional image quality in low light environments (1-5 MP models)
Triple Exposure Ultra Wide Dynamic Range (1-3 MP models)
ONVIF API compliance with version 1.02, 2.00 and Profile S
Factory pre-configured image preset modes for maximum image performance in a variety of lighting conditions
Idle Scene Mode lowers the bandwidth and storage usage if there are no motion events detected in the scene
Full Feature or High Framerate camera operating modes (4K Ultra HD model)
RS-485 interface

Specifications

			1.0 MP	2.0 MP	3.0 MP	5.0 MP	4K ULTRA HD (8.0 MP)
IMAGE PERFORMANCE	Image Sensor		1/2.8” progressive scan CMOS			1/1.8” progressive scan CMOS	1/2.3” progressive scan CMOS
	Aspect Ratio		16:9		4:3		16:9
	Active Pixels (H x V)		1280 x 720	1920 x 1080	2048 x 1536	2592 x 1944	3840 x 2160
	Imaging Area (H x V)		4.8 mm x 2.7mm; 0.189” x 0.106”		5.12 mm x 3.84 mm ; 0.202” x 0.151”	6.22 mm x 4.66 mm; 0.245” x 0.183”	5.95 mm x 3.35 mm; 0.234” x 0.132”
	Minimum Illumination	3 - 9 mm lens:	0.04 lux (F1.3) in color mode; 0.008 lux (F1.3) in monochrome mode			N/A	
		4.3 - 8 mm lens	N/A			0.033 lux (F1.8) in color mode; 0.0066 lux (F1.8) in monochrome mode	0.29 lux (F1.8) in color mode; 0.058 lux (F1.8) in monochrome mode
		4.7 - 84.6 mm lens:	0.08 lux (F1.6) in color mode; 0.016 lux (F1.6) in monochrome mode			N/A	
		9 - 22 mm lens:	0.08 lux (F1.6) in color mode; 0.016 lux (F1.6) in monochrome mode			0.026 lux (F1.6) in color mode; 0.005 lux (F1.6) in monochrome mode	N/A
	Image Rate		30 fps		30 fps (20 fps with WDR enabled)	30 fps	20 fps (30 fps in High Framerate mode)
	Dynamic Range		67 dB			83 dB	91 dB
	Dynamic Range (WDR enabled)		120 dB triple exposure (20 fps or less); 100 dB dual exposure (30 fps)			N/A	N/A
	Resolution Scaling		Down to 768 x 432			Down to 1792 x 1344	Down to 3072 x 1728
	Camera Operating Mode		N/A				Full Feature or High Framerate mode (HDSM 2.0 and analytics disabled in High Framerate mode)

LENS	Lens	3 - 9 mm lens:	F1.3, P-Iris, remote focus and zoom			
		4.3 - 8 mm lens:	F1.8, P-Iris, remote focus and zoom			
		4.7 - 84.6 mm lens:	F1.6 P-Iris, remote focus and zoom			
		9 - 22 mm lens:	F1.6, P-Iris, remote focus and zoom			
	Angle of View	3 - 9 mm lens:	30° – 91°	32° – 98°	N/A	
		4.3 - 8 mm lens:	N/A		46° – 86°	44° – 81°
		4.7 - 84.6 mm lens:	3.3° – 55°	3.5° – 59°	N/A	
		9 - 22 mm lens:	14° – 29°	15° – 31°	18° – 41°	N/A

IMAGE CONTROL	Image Compression Method	H.264 (MPEG-4 Part 10/AVC), Motion JPEG
	Streaming	Multi-stream H.264 and Motion JPEG
	Bandwidth Management	(1.0 - 3.0 MP) HDSM; (5.0 MP and 4K Ultra HD) HDSM 2.0; (ALL) Idle Scene Mode
	Motion Detection	Selectable sensitivity and threshold
	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
	Audio Compression Method	G.711 PCM 8 kHz
	Audio Input/Output	Line level input/output, A/V mini-jack (3.5 mm)
	Video Output	(1.0 - 2.0 MP only) NTSC/PAL, A/V mini-jack (3.5 mm)
	External I/O Terminals	Alarm In, Alarm Out
	USB Port	USB 2.0 Micro

NETWORK	Network	100BASE-TX
	Cabling Type	CAT5
	Connector	RJ-45
	ONVIF	ONVIF compliant with version 1.02, 2.00, Profile S and 2.2.0 of the Analytics Service Specification (*bounding boxes and scene descriptions not available with third-party VMS)
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication
	Protocol	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

		4.7 – 84.6 MM LENS	3 – 9 MM LENS	4.3 – 8 MM LENS	9 – 22 MM LENS
MECHANICAL	Dimensions (LxWxH)	168 mm x 76 mm x 67 mm; 6.6” x 3.0” x 2.6”	167 mm x 76 mm x 67 mm; 6.6” x 3.0” x 2.6”		
	Weight	0.62 kg (1.4 lbs)	0.57 kg (1.3 lbs)		
	Camera Mount	1/4”-20 UNC (top and bottom)			
	Onboard Storage	SD/SDHC/SDXC slot – minimum class 4; class 6 or better recommended			

ELECTRICAL	Power Consumption	8 W	
	Power Source	VDC: 12 V +/- 10%, 8 W min VAC: 24 V +/- 10%, 12 VA min	PoE: IEEE802.3af Class 3 compliant
	Power Connector	2-pin terminal block	
	RTC Backup Battery	3V manganese lithium	

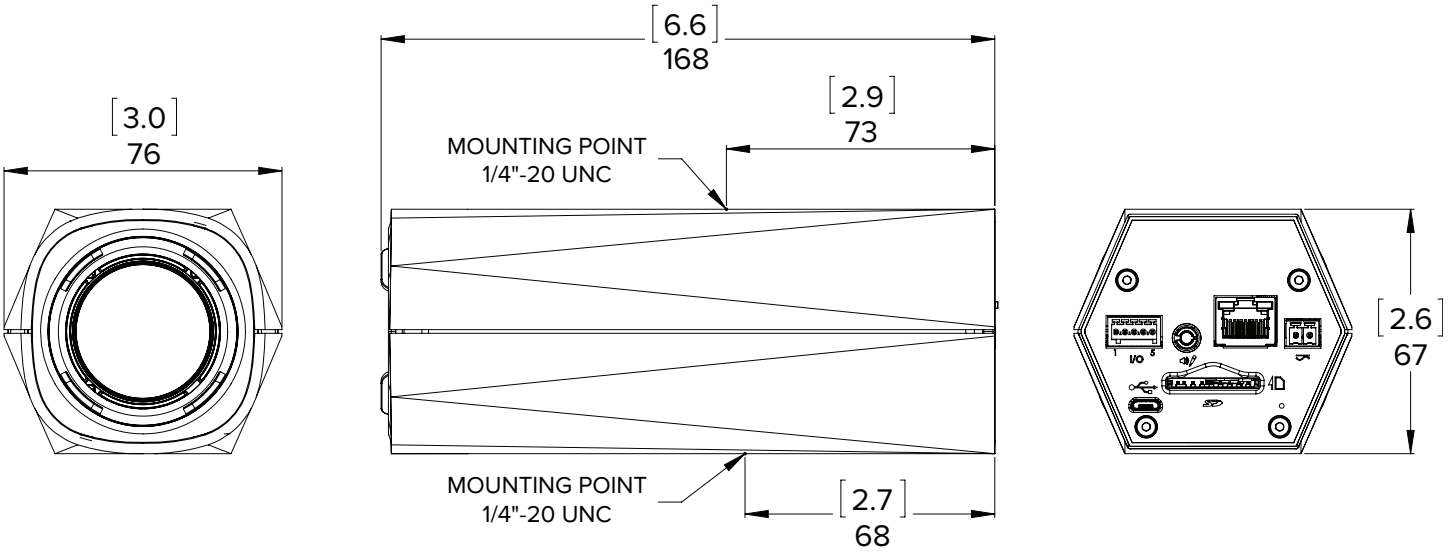
ENVIRONMENTAL	Operating Temperature	-10 °C to +60 °C (14 °F to 140 °F) (8.0 MP only) -10 °C to +50 °C (14 °F to 122 °F)
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)
	Humidity	0 - 95% non-condensing

CERTIFICATIONS	Certifications	UL	cUL	CE	ROHS	WEEE		RCM
	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 55022 Class B	EN 61000-6-3	EN 61000-3-2 EN 61000-3-3
	Electromagnetic Immunity	EN 55024				EN 61000-6-1		

SUPPORTED VIDEO 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 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.

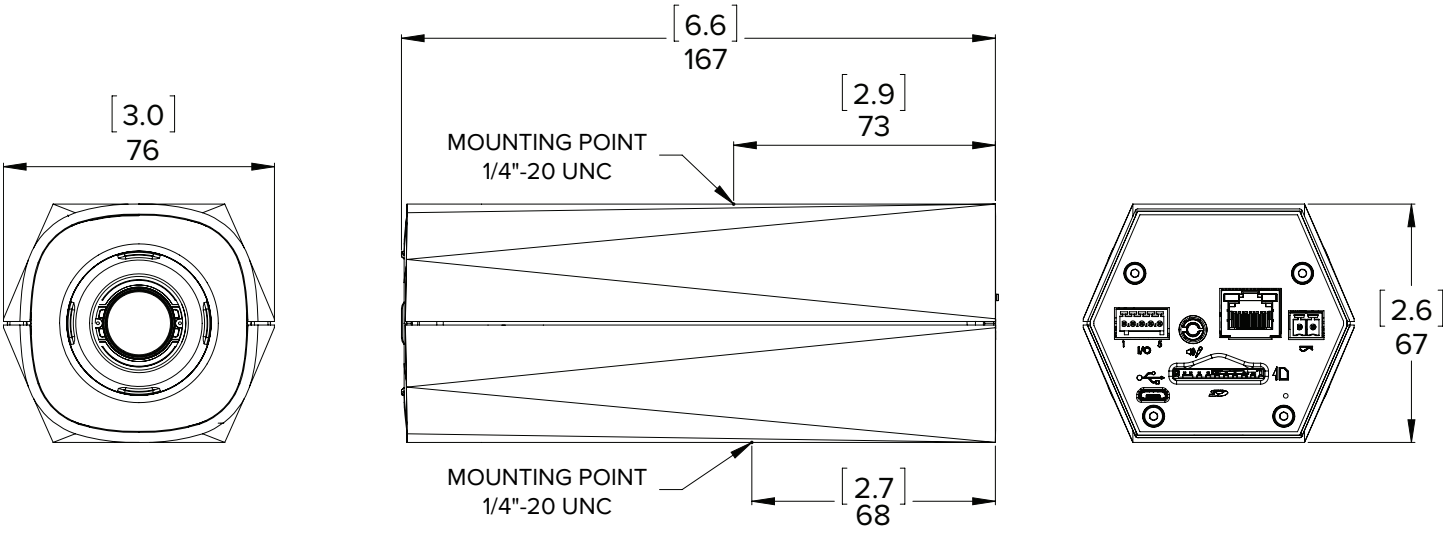
Outline Dimensions

4.7-84.6 mm lens



[X.X]	INCHES
X	MM

3-9 mm lens | 4.3-8 mm lens | 9-22 mm lens



Ordering Information

	MP	WDR	LIGHTCATCHER	ANALYTICS	LENS	DAY/NIGHT
1.0C-H4A-B1	1.0	✓	✓	✓	4.7 - 84.6 mm	✓
1.0C-H4A-B2	1.0	✓	✓	✓	3 - 9 mm	✓
1.0C-H4A-B3	1.0	✓	✓	✓	9 - 22 mm	✓
2.0C-H4A-B1	2.0	✓	✓	✓	4.7 - 84.6 mm	✓
2.0C-H4A-B2	2.0	✓	✓	✓	3 - 9 mm	✓
2.0C-H4A-B3	2.0	✓	✓	✓	9 - 22 mm	✓
3.0C-H4A-B1	3.0	✓	✓	✓	4.7 - 84.6 mm	✓
3.0C-H4A-B2	3.0	✓	✓	✓	3 - 9 mm	✓
3.0C-H4A-B3	3.0	✓	✓	✓	9 - 22 mm	✓
5.0L-H4A-B2	5.0		✓	✓	4.3 - 8 mm	✓
5.0L-H4A-B3	5.0		✓	✓	9 - 22 mm	✓
8.0-H4A-B2	8.0			✓	4.3 - 8 mm	✓

H4-AC-WIFI1-NA	USB Wifi Adapter
CM-AC-AVIO1	3.5 mm Jack with 1.8 m Fly Wire

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