

# H4 Edge Solution (ES) Camera Line

AVIGILON

The H4 Edge Solution Camera line combines high-definition imaging, self-learning video analytics, network video recorder functionality, and embedded Avigilon Control Center™ video management software to create an all-in-one intelligent surveillance solution.



H4 ES CAMERA SERIES

## Onboard Solid-State Drive (SSD) storage

The H4 Edge Solution Camera records video directly to an onboard solid-state drive, eliminates the need for a separate network video recorder, and reduces installation and system costs.

## Avigilon Control Center (ACC Software) Built-in

The H4 Edge Solution Camera line provides unique flexibility and versatility, with deployment options ranging from standalone installation, multi-camera solutions, to seamless integration into a conventional network video surveillance system.

As an Internet of Things device, the solution acts as both a camera and out-of-the-box video management software platform, providing a uniquely easy-to-install and cost-effective surveillance solution.

## KEY FEATURES

1-3 megapixel models
Factory installed and licensed with ACC Video Management software running on the camera
Up to 256 GB on-board Solid-State Drive (SSD)
Up to 30 days of video retention
Self-learning video analytics
Patented Advanced Video Pattern Detection and Teach by Example Technology
Patented High Definition Stream Management (HDSM)™ Technology maintains image quality while reducing bandwidth
Idle Scene Mode lowers the bandwidth and storage usage if there are no motion events detected in the scene
Wifi camera configuration support
Avigilon LightCatcher™ technology provides exceptional image quality in low light environments
Triple Exposure Ultra Wide Dynamic Range
Factory pre-configured image preset modes for maximum image performance in a variety of lighting conditions

# Specifications

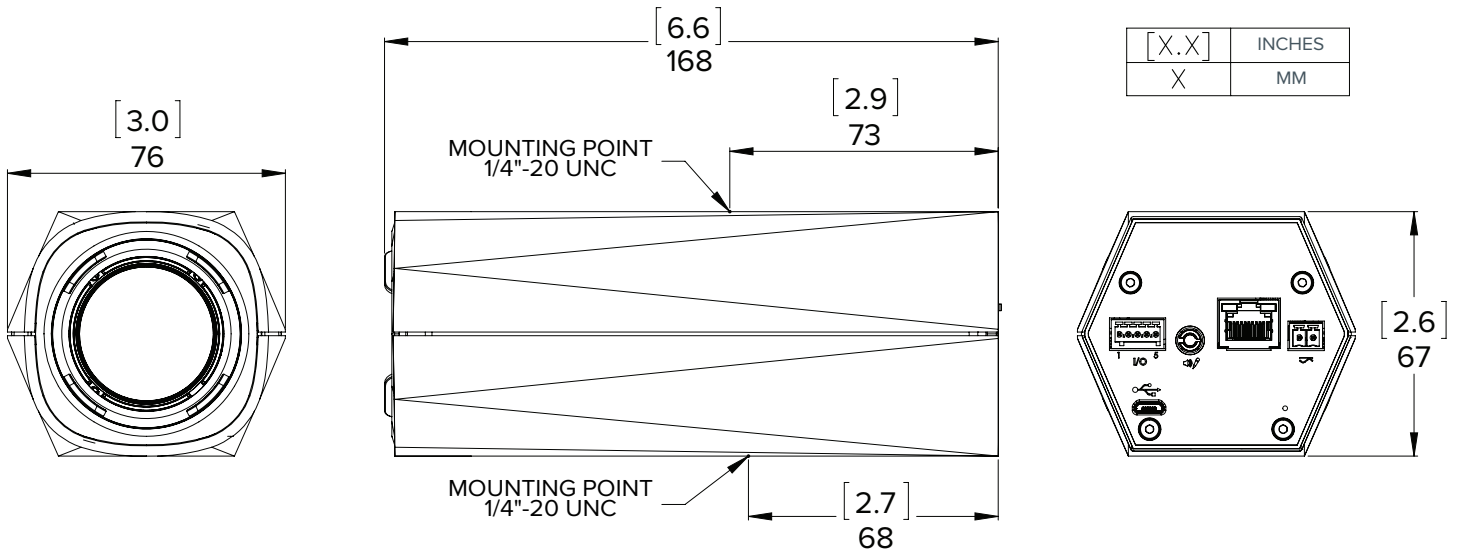
		1.0 MP	2.0 MP	3.0 MP						
<b>IMAGE PERFORMANCE</b>	Image Sensor	1/2.8" progressive scan CMOS								
	Aspect Ratio	16:9		4:3						
	Active Pixels (H x V)	1280 x 720		2048 x 1536						
	Imaging Area (H x V)	4.8 mm x 2.7mm; 0.189" x 0.106"		5.12 mm x 3.84 mm ; 0.202" x 0.151"						
	Minimum Illumination	0.08 lux (F1.6) in color mode; 0.016 lux (F1.6) in monochrome mode								
	Image Rate	High Framerate	30 fps		30 fps					
		Full Feature	12 fps		12 fps					
	Dynamic Range	67 dB								
	Dynamic Range (WDR enabled)	120 dB triple exposure (20 fps or less); 100 dB dual exposure (30 fps)		120 dB triple exposure (Full Feature Mode). WDR is disabled in High Framerate Mode						
	Resolution Scaling	Down to 768 x 432								
	Camera Operating Mode	N/A		High Framerate = Camera will prioritize maximum image rate over other features. WDR is disabled. Full Feature = Camera will prioritize feature capabilities over image rate.						
	<b>ONBOARD STORAGE</b>	Solid-State Drive (SSD)	128 G		256 G					
Retention Rate		Up to 30 days (2 Mbps stream based on 30% motion duty cycle)								
<b>LENS</b>	Lens	4.7 - 84.6 mm F1.6 P-Iris, remote focus and zoom								
	Angle of View	3.3° – 55°		3.5° – 59°						
<b>IMAGE CONTROL</b>	Image Compression Method	H.264 (MPEG-4 Part 10/AVC), Motion JPEG								
	Streaming	Multi-stream H.264 and Motion JPEG								
	Bandwidth Management	HDSM and 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								
	<b>NETWORK</b>	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								
<b>MECHANICAL</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)							
	Camera Mount	1/4"-20 UNC (top and bottom)								
<b>ELECTRICAL</b>	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								
<b>ENVIRONMENTAL</b>	Operating Temperature	-10 °C to +60 °C (14 °F to 140 °F)								
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)								
	Humidity	0 - 95% non-condensing								
<b>CERTIFICATIONS</b>	Certifications	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 55022 Class B		EN 61000-6-3	EN 61000-3-2	EN 61000-3-3	KN 32
	Electromagnetic Immunity	EN 55024			EN 61000-6-1		KN 35			
<b>SUPPORTED VIDEO ANALYTICS EVENTS</b>	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.								

**SUPPORTED ACC FEATURES**

System	<ul style="list-style-type: none"> <li>1 camera per server (connection to self)</li> <li>Site supports up to 200 cameras and a total of 100 defined users. H4 ES Cameras can be part of a site with 15 other H4 ES Cameras, ACC ES HD Recorders, or ACC servers</li> </ul>	<ul style="list-style-type: none"> <li>2 simultaneous client connections (override supported)</li> </ul>
Recording Rate	12 Mbps	
Stream Out Rate	24 Mbps	
Client	<ul style="list-style-type: none"> <li>Saved Views</li> <li>Maps</li> <li>Web pages</li> </ul>	<ul style="list-style-type: none"> <li>Editable Site View</li> <li>Intelligent Virtual Matrix</li> <li>Collaborative investigations</li> </ul>
Recording, Searching and Playback	<ul style="list-style-type: none"> <li>Hourly configurable recording schedule</li> <li>Intelligent motion search</li> <li>Live export</li> <li>Video archiving</li> </ul>	<ul style="list-style-type: none"> <li>Thumbnail search</li> <li>Event search</li> <li>Alarm search</li> </ul>
Integrations	<a href="#">All 3rd party integrations via the ACC SDK</a>	Plus: <ul style="list-style-type: none"> <li>CommScope iPatch</li> <li>RS2 AccessIt!</li> <li>DDS Amadeus 5</li> <li>DSX</li> </ul>
Additional Features	<ul style="list-style-type: none"> <li>Email event notification</li> <li>Digital input email trigger</li> <li>Manual digital output trigger</li> <li>Audio recording and talkdown</li> </ul>	<ul style="list-style-type: none"> <li>Unlimited rule triggers</li> <li>Failover connections</li> <li>Alarm escalation</li> <li>*Redundant recording</li> </ul>

\*Depending on level of site activity (site, camera, analytics, etc), redundant recording to a secondary server may exhibit a degradation in performance.

## Outline Dimensions



## Ordering Information

	MP	WDR	LIGHTCATCHER	ANALYTICS	STORAGE	LENS	DAY/NIGHT
1.0C-H4A-12G-B1	1.0	✓	✓	✓	128 G	4.7 - 84.6 mm	✓
2.0C-H4A-25G-B1	2.0	✓	✓	✓	256 G	4.7 - 84.6 mm	✓
3.0C-H4A-25G-B1	3.0	✓	✓	✓	256 G	4.7 - 84.6 mm	✓
H4-AC-WIFI1-NA	USB Wifi Adapter						
CM-AC-AVIO1	3.5 mm Jack with 1.8 m Fly Wire						