H4 Edge Solution (ES) Outdoor Dome Camera Line

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.

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 day 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
Zoom and content adaptive integrated IR (Infrared) LEDs provide uniform illumination in the dark, even at 0 lux, up to a maximum of 30 m (98 ft) away
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

IMAGE PERFORMANCE

	1.0 MP	2.0 MP	3.0 MP
Image Sensor	1/2.8" progressive scan CMOS		
Aspect Ratio	16:9		4:3
Active Pixels (H x V)	1280 x 720	1920 x 1080	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"
IR Illumination Option (high power 850 nm LEDs)	30 m (98 ft) max. distance at 0 lux		
Minimum Illumination	0.04 lux (F1.3) in color mode; 0.008 lux (F1.3) in monochrome mode		
Image Rate — High Framerate	30 fps	30 fps	30 fps
Image Rate — 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.	
3D Noise Reduction Filter	YES		

ONBOARD STORAGE

	1.0 MP	2.0 MP	3.0 MP
Solid-State Drive (SSD)	128 G	256 G	256 G
Retention Rate	Up to 30 days (2 Mbps stream based on 30% motion duty cycle)		

LENS

Lens	3 - 9 mm F1.3, P-Iris, remote focus and zoom
Angle of View	30° – 91° (3.0 MP: 32° – 98°)

IMAGE CONTROL

Image Compression Method	H.264 (MPEG-4 Part 10/AVC), Motion JPEG, HDSM SmartCodec Technology
Streaming	Multi-stream H.264 and Motion JPEG
Bandwidth Management	HDSM
Motion Detection	Pixel and classified objects
Camera Tampering 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
Audio Compression Method	G.711 PCM 8 kHz
Audio Input/Output	Line level input and 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

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	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

MECHANICAL

	PENDANT DOME CAMERA	SURFACE MOUNT OUTDOOR DOME CAMERA
Dimensions (LxWxH)	dome camera only: 172 mm x 172 mm x 124 mm; (6.8" x 6.8" x 4.9") with wall mount (H4-MT-WALL1): 275 mm x 172 mm x 152.1 mm (10.8" x 6.8" x 6.0") with NPT mount (H4-MT-NPTA1): 172 mm x 172 mm x 172.3 mm (6.8" x 6.8" x 6.8")	163 mm x 163 mm x 121 mm; (6.4" x 6.4" x 4.8")
Weight	dome camera only: 1.55 kg (3.42 lbs) with wall mount (H4-MT-WALL1): 3.00 kg (6.62 lbs) with NPT mount (H4-MT-NPTA1): 1.80 kg (3.98 lbs)	1.35 kg (2.97 lbs)
Dome Bubble	Polycarbonate, clear	
Body	Aluminum	
Housing	Pendant mount, vandal resistant - with wall mount (H4-MT-WALL1) / NPT mount (H4-MT-NPTA1)	Surface mount, vandal resistant
Finish	Powder coat, RAL 9003	
Adjustment Range	360° pan, 9° – 95° tilt (30° – 95° with -IR option), ±180° azimuth	

ELECTRICAL

	1.0 MP	2.0 MP	3.0 MP
Power Consumption	9 W		
Power Source	VDC: 12 V +/- 10%, 9 W min	VAC: 24 V +/- 10%, 13 VA min	PoE: IEEE802.3af Class 3 compliant
Power Connector	2-pin terminal block		
RTC Backup Battery	3V manganese lithium		

ENVIRONMENTAL

Operating Temperature	-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

CERTIFICATIONS

Certifications/Directives	UL	cUL	CE	ROHS	WEEE	RCM	EAC	KC	BIS
Safety	UL 60950-1		CSA 60950-1		IEC/EN 60950-1	IEC 62471 (for -IR options only)			
Environmental	UL/CSA/IEC 60950-22		IEC 60529 IP66 Rating		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	EN 55011
Electromagnetic Immunity	EN 55024				EN 61000-6-1				

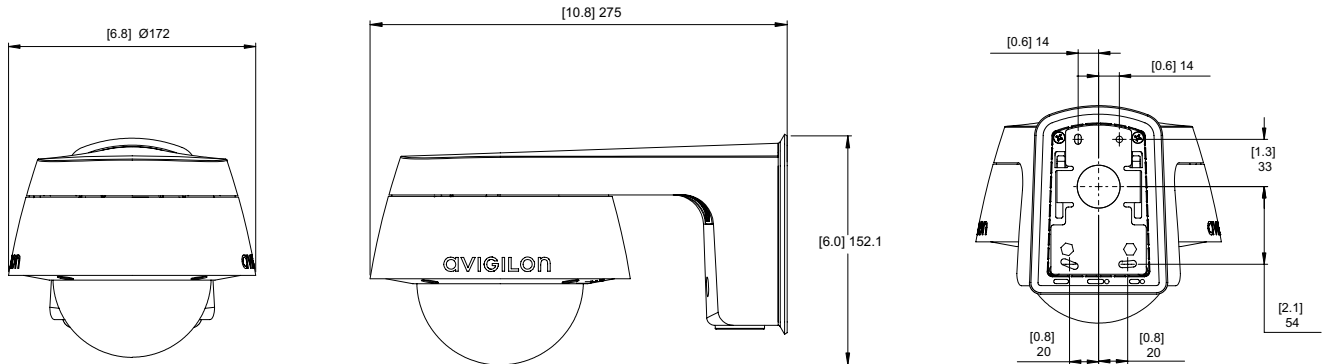| SUPPORTED RULE BASED VIDEO ANALYTICS EVENTS	Objects in Area	The event is triggered when the selected object type moves into the region of interest.
	Object Loitering	The event is triggered when the selected object type stays within the region of interest for an extended amount of time.
	Objects Crossing 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.

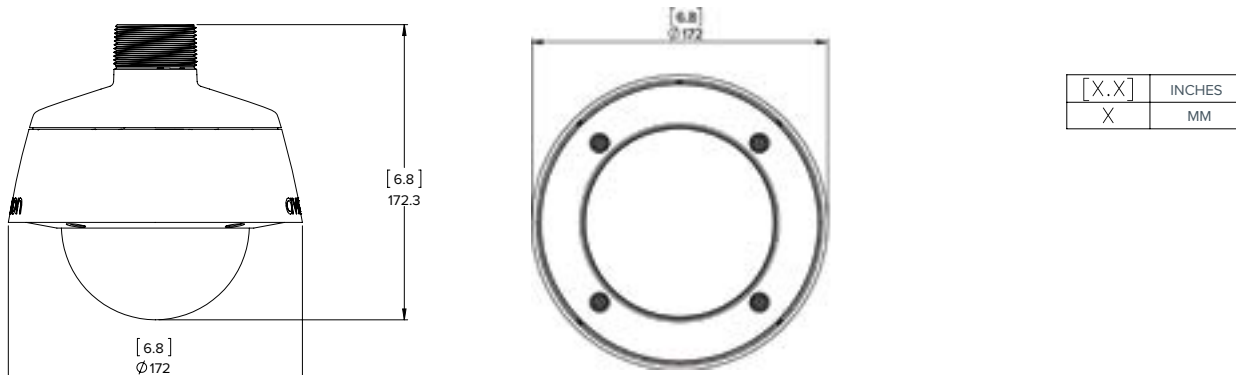| SUPPORTED ACC FEATURES	System	• 1 camera per server (connection to self) • 2 simultaneous client connections (override supported) • Site supports up to 200 cameras and a total of 100 defined users. H4 ES Cameras can be part of a site with 15 other H4 ES Cameras, ACC ES HD Recorders, or ACC servers
	Recording Rate	12 Mbps
	Stream Out Rate	24 Mbps
	Client	• Saved Views • Editable Site View • Maps • Intelligent Virtual Matrix • Web pages • Collaborative investigations
	Recording, Searching and Playback	• Hourly configurable recording schedule • Thumbnail search • Intelligent motion search • Event search • Live export • Alarm search • Video archiving
	Integrations	All 3rd party integrations via the ACC SDK Plus: • CommScope iPatch • DDS Amadeus 5 • RS2 AccessIt! • DSX
	Additional Features	• Email event notification • Unlimited rule triggers • Digital input email trigger • Failover connections • Manual digital output trigger • Alarm escalation • Audio recording and talkdown • *Redundant recording *Depending on level of site activity (site, camera, analytics, etc), redundant recording to a secondary server may exhibit a degradation in performance.

Outline Dimensions
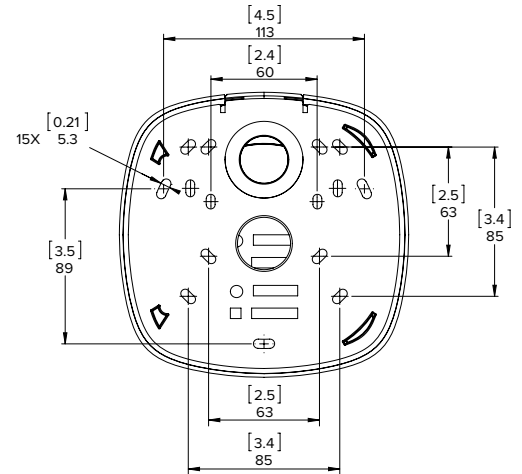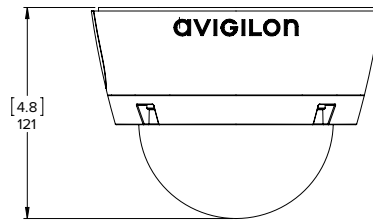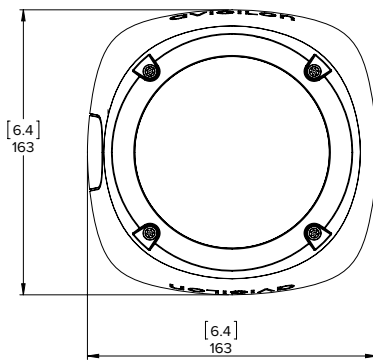## Pendant Dome Camera

WITH WALL MOUNT (H4A-MT-WALL1)

[6.8] Ø172   [10.8] 275   [0.6] 14   [0.6] 14

[6.0] 152.1

[1.3] 33

[2.1] 54

[0.8] 20   [0.8] 20

WITH NPT MOUNT (H4A-MT-NPTA1)

[6.8] 172.3

[6.8] Ø172

[6.8] Ø172

[X.X]	INCHES
X	MM

Surface Mount Outdoor Dome Camera

(H4A-DO)

Ordering Information

PENDANT DOME CAMERAS	MP	WDR	LIGHTCATCHER	ANALYTICS	STORAGE	LENS	IR	HDSM SMARTCODEC
1.0C-H4A-12G-DP1-IR(-B)*	1.0	✓	✓	✓	128 G	3 - 9 mm	✓	✓
2.0C-H4A-25G-DP1-IR(-B)*	2.0	✓	✓	✓	256 G	3 - 9 mm	✓	✓
3.0C-H4A-25G-DP1-IR(-B)*	3.0	✓	✓	✓	256 G	3 - 9 mm	✓	✓

* These models are physically identical. (-B)* depicts an updated hardware version.

H4A-MT-WALL1	Indoor/Outdoor Pendant Wall Arm Mount
H4A-MT-NPTA1	Indoor/Outdoor Pendant NPT Mount
H4A-DP-SMOK1	Dome Camera Cover with Smoked Bubble
H4A-DP-CLER1	Dome Camera Cover with Clear Bubble
H4-MT-POLE1	Aluminum pole mounting bracket for H4 HD Pendant Dome Cameras and H4 HD Bullet Cameras
H4-MT-CRNR1	Aluminum corner mounting bracket for H4 HD Pendant Dome Cameras and H4 HD Bullet Cameras
H4A-AC-GROM1	Camera Sealing Grommet, Pack of 10
H4-AC-WIFI2-NA	USB Wifi Adapter
H4-AC-WIFI2-EU	USB Wifi Adapter
CM-AC-AVIO1	3.5 mm Jack with 1.8 m Fly Wires
CM-AC-GROM1	Pipe Grommet, Pack of 10

SURFACE MOUNT OUTDOOR DOME CAMERAS	MP	WDR	LIGHTCATCHER	ANALYTICS	STORAGE	LENS	IR	HDSM SMARTCODEC
1.0C-H4A-12G-DO1-IR(-B)*	1.0	✓	✓	✓	128 G	3 - 9 mm	✓	✓
2.0C-H4A-25G-DO1-IR(-B)*	2.0	✓	✓	✓	256 G	3 - 9 mm	✓	✓
3.0C-H4A-25G-DO1-IR(-B)*	3.0	✓	✓	✓	256 G	3 - 9 mm	✓	✓

* These models are physically identical. (-B)* depicts an updated hardware version.

H4A-DO-SMOK1	Outdoor Dome Camera Cover with Smoked Bubble
H4A-DO-CLER1	Outdoor Dome Camera Cover with Clear Bubble
H4-AC-WIFI2-NA	USB Wifi Adapter
H4-AC-WIFI2-EU	USB Wifi Adapter
H4A-AC-GROM1	Camera Sealing Grommet, Pack of 10
CM-AC-AVIO1	3.5 mm Jack with 1.8 m Fly Wires
CM-AC-GROM1	Pipe Grommet, Pack of 10