

# H4 HD Indoor Dome Camera with Self-Learning Video Analytics

AVIGILON

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 indoor dome cameras are just one way Avigilon can help provide effective monitoring and protection.



The H4 HD indoor dome cameras are a great solution for monitoring both daytime and nighttime activities. Embedded with self-learning video analytics, the H4 HD cameras seamlessly integrate with Avigilon Control Center (ACC)<sup>™</sup>, allowing security personnel to respond proactively and mitigate an incident before damage is done. They feature an integrated lens for remote focus and zoom control and are ONVIF compliant for easy integration. Avigilon's indoor dome cameras are equipped with new Triple Exposure Ultra-Wide Dynamic Range (WDR) and patented LightCatcher<sup>™</sup> technology, ensuring you receive excellent image detail. P-Iris control also allows the cameras to automatically set their iris position to enhance image quality in all lighting conditions, while onboard storage capabilities let you manage storage directly on the cameras using a standard SD memory card. These cameras are 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) <sup>™</sup> Technology
Wifi camera configuration support
Available with 3-9 mm F1.3, 4.3-8 mm F1.8, or 9-22 mm F1.6 P-Iris lens with remote focus and zoom
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 (1-5 MP models)
Triple Exposure Ultra Wide Dynamic Range (1-3 MP models)
ONVIF compliant with version 2.2.0 of the Analytics Service Specification
Factory pre-configured image preset modes for maximum image performance in a variety of lighting conditions
Idle Scene Mode lowers 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)
Vandal resistant construction

# Specifications

		1.0 MP	2.0 MP	3.0 MP	5.0 MP	4K ULTRA HD (8.0 MP)	
<b>IMAGE PERFORMANCE</b>	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	
	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	
	IR Illumination (option) (High Power 850 nm LEDs)	30 m (98 ft) max. distance at 0 lux					15 m (50 ft) max distance at 0 lux
	Minimum Illumination	3 - 9 mm lens: 0.04 lux (F1.3) in color mode; 0.008 lux (F1.3) in monochrome mode			N/A	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
		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 (full resolution)	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)	
<b>LENS</b>	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					
		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		N/A		46° - 86°	
	9 - 22 mm lens: 14° - 29°		15° - 31°		18° - 41°	44° - 81°	
<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	(1.0 - 3.0 MP) HDSM; (5.0 MP and 4K Ultra HD) HDSM 2.0; (ALL) Idle Scene Mode					
	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/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					
<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, 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>		<b>SURFACE MOUNT INDOOR DOME CAMERA</b>			<b>IN-CEILING DOME CAMERA</b>		
	Dimensions (LxWxH)	163 mm x 163 mm x 118 mm (6.4" x 6.4" x 4.7")			181 mm x 181 mm x 164 mm (7.1" x 7.1" x 6.5")		
	Weight	0.95 kg (2.09 lbs)			1.6 kg (3.5 lbs)		
	Dome Bubble	Polycarbonate, clear					
	Body	Plastic, Aluminum			Plastic, Aluminum		
	Housing	Surface mount, tamper resistant			Recessed mount, tamper resistant		
	Finish	Plastic, gray			Plastic, gray; Aluminum, powder coat, black		
	Adjustment Range	360° pan, 9° - 95° tilt (30° - 95° tilt with -IR option), ±180° azimuth					
	Onboard Storage	SD/SDHC/SDXC slot - minimum class 4; class 6 or better recommended					
	<b>ELECTRICAL</b>	Power Consumption	7 W (9 W for -IR option)				
Power Source		VDC: 12 V +/- 10%, 7 W min (9 W min with -IR option)			PoE: IEEE802.3af Class 3 compliant		
		VAC: 24 V +/- 10%, 10 VA min (13 VA min with -IR option)					
Power Connector		2-pin terminal block					
RTC Backup Battery	3V manganese lithium						
<b>ENVIRONMENTAL</b>	Operating Temperature	-40 °C to +60 °C (-40 °F to 140 °F) (8.0 MP only) -40 °C to +50 °C (-40 °F to 122 °F)					
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)					
	Humidity	0 - 95% non-condensing					

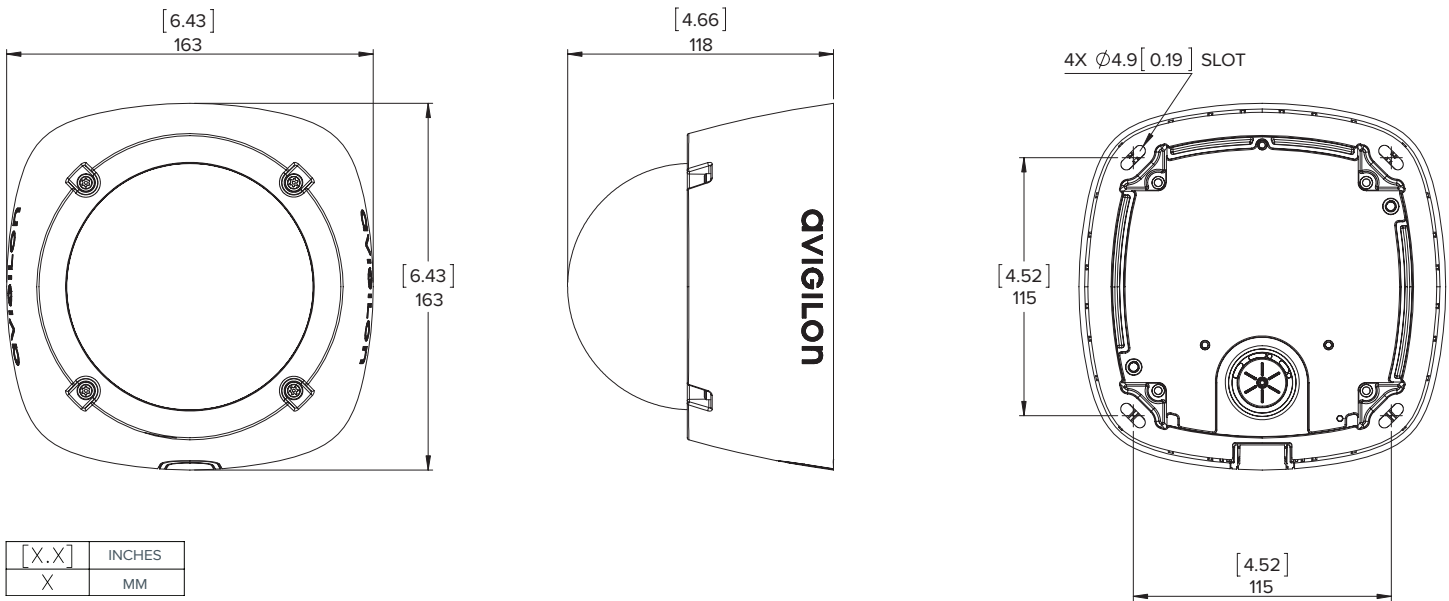
CERTIFICATIONS	Certifications	UL	cUL	CE	ROHS	WEEE	RCM	KC	EAC
Safety	UL 60950-1			CSA 60950-1		IEC/EN 60950-1		IEC 62471 (for -IR option)	
Environmental	IK10 Impact Rating								
Electromagnetic Emissions	FCC Part 15 Subpart B Class B			IC ICES-003 Class B		EN 55022 Class B		EN 61000-6-3	EN 61000-3-2
Electromagnetic Immunity	EN 55024					EN 61000-6-1			EN 61000-3-3 KN 32
									KN 35

SUPPORTED VIDEO ANALYTICS EVENTS	Objects in Area
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

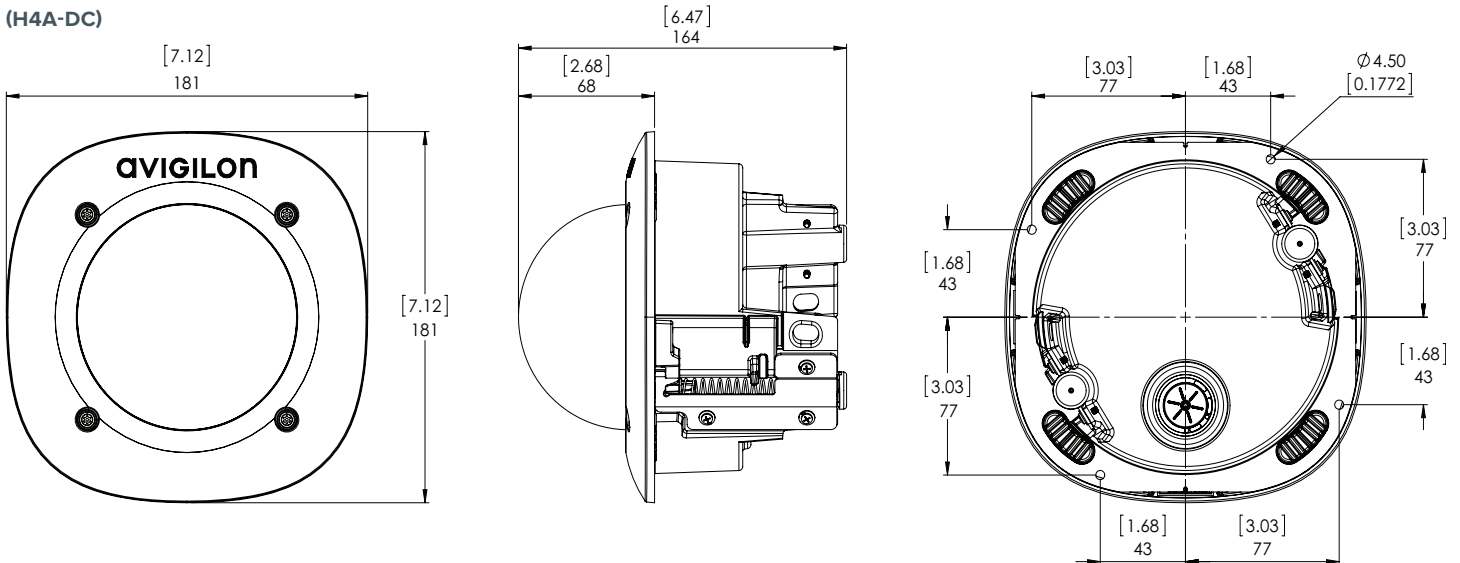
### Surface Mount Dome Camera

(H4A-D)



### In-Ceiling Dome Camera

(H4A-DC)



# Ordering Information

H4 HD CAMERA SERIES

SURFACE MOUNT INDOOR DOME CAMERAS	MP	WDR	LIGHTCATCHER	ANALYTICS	LENS	IR
1.0C-H4A-D1	1.0	✓	✓	✓	3 - 9 mm	
1.0C-H4A-D1-IR	1.0	✓	✓	✓	3 - 9 mm	✓
1.0C-H4A-D2	1.0	✓	✓	✓	9 - 22 mm	
2.0C-H4A-D1	2.0	✓	✓	✓	3 - 9 mm	
2.0C-H4A-D1-IR	2.0	✓	✓	✓	3 - 9 mm	✓
2.0C-H4A-D2	2.0	✓	✓	✓	9 - 22 mm	
3.0C-H4A-D1	3.0	✓	✓	✓	3 - 9 mm	
3.0C-H4A-D1-IR	3.0	✓	✓	✓	3 - 9 mm	✓
3.0C-H4A-D2	3.0	✓	✓	✓	9 - 22 mm	
5.0L-H4A-D1	5.0		✓	✓	4.3 - 8 mm	
5.0L-H4A-D2	5.0		✓	✓	9 - 22 mm	
5.0L-H4A-D1-IR	5.0		✓	✓	4.3 - 8 mm	✓
8.0-H4A-D1	8.0			✓	4.3 - 8 mm	
8.0-H4A-D1-IR	8.0			✓	4.3 - 8 mm	✓

H4A-DD-SMOK1	Indoor Dome Camera Cover with Smoked Bubble					
H4A-DD-CLER1	Indoor Dome Camera Cover with Clear Bubble					
H4A-DD-SMOK1-BL	Black Indoor Dome Camera Cover with Smoked Bubble					
H4A-DD-CLER1-BL	Black Indoor Dome Camera Cover with Clear Bubble					
H4A-DD-SDWL1	Indoor Dome Camera Sidewall Knockout Plug, Pack of 5					
H4A-DD-SDWL1-BL	Indoor Black Dome Camera Sidewall Knockout Plug, Pack of 5					
H4A-AC-GROM1	Camera Sealing Grommet, Pack of 10					
H4-AC-WIFI1-NA	USB Wifi Adapter					
CM-AC-AVIO1	3.5 mm Jack with 1.8 m Fly Wires					

IN-CEILING DOME CAMERAS	MP	WDR	LIGHTCATCHER	ANALYTICS	LENS
1.0C-H4A-DC1	1.0	✓	✓	✓	3 - 9 mm
1.0C-H4A-DC2	1.0	✓	✓	✓	9 - 22 mm
2.0C-H4A-DC1	2.0	✓	✓	✓	3 - 9 mm
2.0C-H4A-DC2	2.0	✓	✓	✓	9 - 22 mm
3.0C-H4A-DC1	3.0	✓	✓	✓	3 - 9 mm
3.0C-H4A-DC2	3.0	✓	✓	✓	9 - 22 mm
5.0L-H4A-DC1	5.0		✓	✓	4.3 - 8 mm
5.0L-H4A-DC2	5.0		✓	✓	9 - 22 mm
8.0-H4A-DC1	8.0			✓	4.3 - 8 mm

H4A-DC-SMOK1	In-Ceiling Dome Camera Cover with Smoked Bubble					
H4A-DC-CLER1	In-Ceiling Dome Camera Cover with Clear Bubble					
H4A-DC-SMOK1-BL	Black In-Ceiling Dome Camera Cover with Smoked Bubble					
H4A-DC-CLER1-BL	Black In-Ceiling Dome Camera Cover with Clear Bubble					
H4A-DC-CPNL1	Metal Ceiling Panel					
H4A-AC-GROM1	Camera Sealing Grommet, Pack of 10					
H4-AC-WIFI1-NA	USB Wifi Adapter					
CM-AC-AVIO1	3.5 mm Jack with 1.8 m Fly Wires					