H4 IR PTZ Camera with Self-Learning Video Analytics

The Avigilon H4 IR PTZ is a high-resolution outdoor PTZ camera with a 250 meter (820 feet) IR illumination range that automatically adjusts the IR projection angle according to zoom and field of view, ensuring the scene is illuminated accordingly to camera zoom level. Combined with WDR, image stabilization and Avigilon patented LightCatcher™ technology, this camera provides exceptional images in a wide range of applications and environments. An abrasion-resistant front lens and a built in silicone rubber wiper* ensures undistorted clean images even in adverse weather conditions, making it well-suited for a range of weather and outdoor surveillance applications.

* Available on models with part numbers that end in -WP.

250 Meters

The Avigilon H4 IR PTZ camera combines infrared illumination, fast autofocus, and precise Pan-Tilt-Zoom capabilities for operators to easily detect and follow a moving object with a high level of precision and control with a single camera. The new H4 IR PTZ camera line is available in 1 and 2 megapixel (MP) camera resolutions, situated in a pendant mount suitable for challenging outdoor environments. The 1 MP PTZ camera has 45x zoom, while the 2 MP PTZ has a built-in 30x zoom optical glass front lens for high-quality, detailed images from great distances.

With its powerful zoom lens and IR technology, the H4 IR PTZ allows users to see up to 250 meters (820 feet) in complete darkness. The camera's IR projection angle and distance automatically adjust based on camera zoom lens movement, ensuring the scene is well illuminated for high-quality, detailed images.

Avigilon HDSM SmartCodec™ technology H4 platform optimizes the video stream in real time using automatic ROI encoding to save bandwidth and storage requirements while maintaining image quality.

KEY FEATURES

Optimized for long range illumination up to 250 meters (820 feet) zoomed in or out, allowing the operator to see in total darkness

Built in 850nm IR illumination ensures the scene is well illuminated

Smooth, fast precision PTZ movements with tilt reaching 20 degrees above the horizon

Self-learning video analytics at the home position

1 MP and 2 MP camera resolutions up 60 fps

1 MP zoom to a range of 45x and 2 MP zooms up to 30x

Wide Dynamic Range (WDR), Electronic Image Stabilization (EIS), and LightCatcher technologies provide exceptional image quality

Avigilon's HDSM SmartCodec technology and idle scene mode technology for reduced bandwidth and storage requirements

IK 10 impact rating

Outdoor housing IP66 certified for comprehensive dust and water ingress protection

New H4 IR PTZ mounting adaptors, with wall mount or NPT mount available for order

Compatible with present H4 PTZ corner mount and pole mount accessories

Specifications

		1.0 MP	2.0 MP
IMAGE PERFORMANCE	Image Sensor	WDR 1/2.8" progressive scan CMOS	
	Active Pixels	1280 (H) × 720 (V)	1920 (H) × 1080 (V)
	Imaging Area	4.8 mm (H) × 2.7 mm (V); 0.189" (H) × 0.106" (V)	
	IR Illumination	250 m (820 ft) maximum distance at 0 lux	
	Minimum Illumination	0 lux in IR mode; 0.1 lux (F/1.6) in color mode (no IR); 0.03 lux (F/1.6) in monochrome mode (no IR)	
	Dynamic Range	120+ dB	
	Image Rate	Up to 60 fps	
	(Aspect Ratio) Resolution Scaling	down to (16:9) 384×216 or (5:4) 320×256	
	3D Noise Reduction Filter	Yes, Adjustable Strength	
LENS	Lens	4.3 to 129 mm, F/1.6 – F/4.7, autofocus	4.3 to 129 mm, F/1.6 – F/4.7, autofocus
	Angle of View	1.5° - 63.7°	2.3° - 63.7°
	Optical Zoom	45x	30x
IMAGE CONTROL	Video Compression	H.264 (MPEG-4 Part 10/AVC), Motion JPEG, HDSM SmartCodec technology	
	Streaming	Multi-stream H.264 and Motion JPEG	
	Motion Detection	Selectable sensitivity and threshold	
	Electronic Shutter Control	Automatic, Manual (1/1 to 1/10,000 sec)	
	Iris Control	Automatic, Manual	
	Day/Night Control	Automatic, Manual	
	Flicker Control	50 Hz, 60 Hz	
	White Balance	Automatic, Manual	
	Backlight Compensation	Manual	
	Privacy Zones	Up to 64 zones, 3D privacy mask supported	
	Presets	500 named presets	
	Tours	10 named guard tours	
	Audio Compression Method	G.711 PCM 8 kHz	
	Digital Zoom	Up to 100x when used with ACC™ Client for Windows	
	Electronic Image Stabilization	On/Off	
	Digital Defog	Adjustable/Off	
NETWORK	Network	100BASE-TX	
	Cabling Type	CAT5e	
	Connector	RJ-45	
	ONVIF®	ONVIF compliance version 1.02, 2.00, Profile S, Profile T, Profile G (www.onvif.org)	
	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, LLDP	
	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	Audio Input/Output	Line level input and output	
	Analog Video Output	N/A	
	External I/O Terminals	Four (4) Alarm In; Two (2) Alarm Out	
	Onboard Storage	microSD/microSDHC/microSDXC slot – minimum class 6; class 10/UHS-1 or better recommended	
MECHANICAL	Dimensions (ØxH)	Camera — (Ø) 250 mm × (H) 364 mm; (Ø) 9.84" × (H) 14.33"; Camera with wall mount — (W) 363 mm × (L) 250 mm × (H) 457 mm; (W) 14.29" × (L) 9.84" × (H) 17.99"; Camera with NPT mount — (Ø) 250 mm × (H) 444 mm; (Ø) 9.84" × (H) 17.48"	
	Weight	Camera — 6.66 kg; 14.68 lbs; Camera with wall mount — 7.77 kg; 17.13 lbs; Camera with NPT mount — 7.13 kg; 15.72 lbs	
	Front Window	Optical glass	
	Body	Aluminum	
	Housing	Pendant mount	
	Finish	Powder coat, cool grey	
	Tilt	-20° to 90°, Auto-Flip, 300°/second max	
	Pan	360°, endless, 300°/second	
ELECTRICAL	Power Consumption	75 W max with 24 VDC aux power, 71W max with 95W PoE, 105 VA with 24 V AC RMS aux power	
	Power Source External Power	24 VDC ± 10%; 24 VAC rms ± 10%, 50 or 60Hz	
	PoE*	95W PoE*: POE-INJ2-95W 60W PoE*: POE-INJ2-60W	
	Aux Power Connection	Red and Black wires	
	RTC Backup Battery	3V manganese lithium	

*   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.
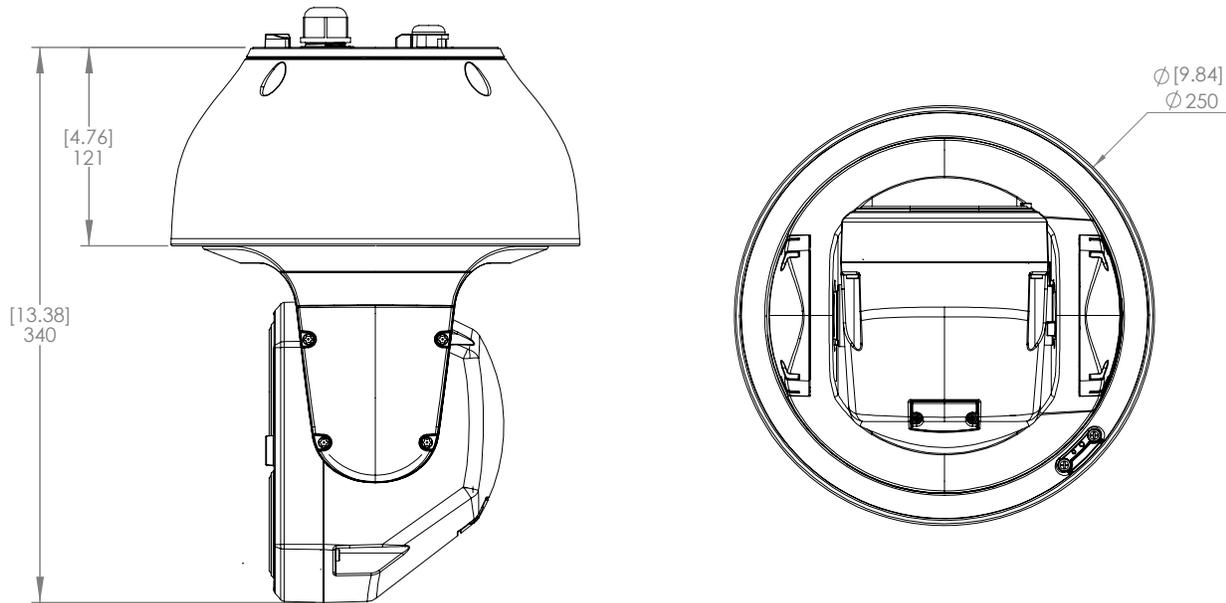
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Listed specifications may change without prior notice.

ENVIRONMENTAL	Operating Temperature	-40 °C to +60 °C (-40 °F to 140 °F) with external power or 95 W PoE -10 °C to +50 °C (14 °F to 122 °F) with 60W PoE Wiper is functional at 1 °C to +60 °C (34 °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, BIS
	Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1
	Environmental	IK10 Impact Rating, IEC 60529 IP66 Rating, UL/CSA/IEC 60950-22
	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

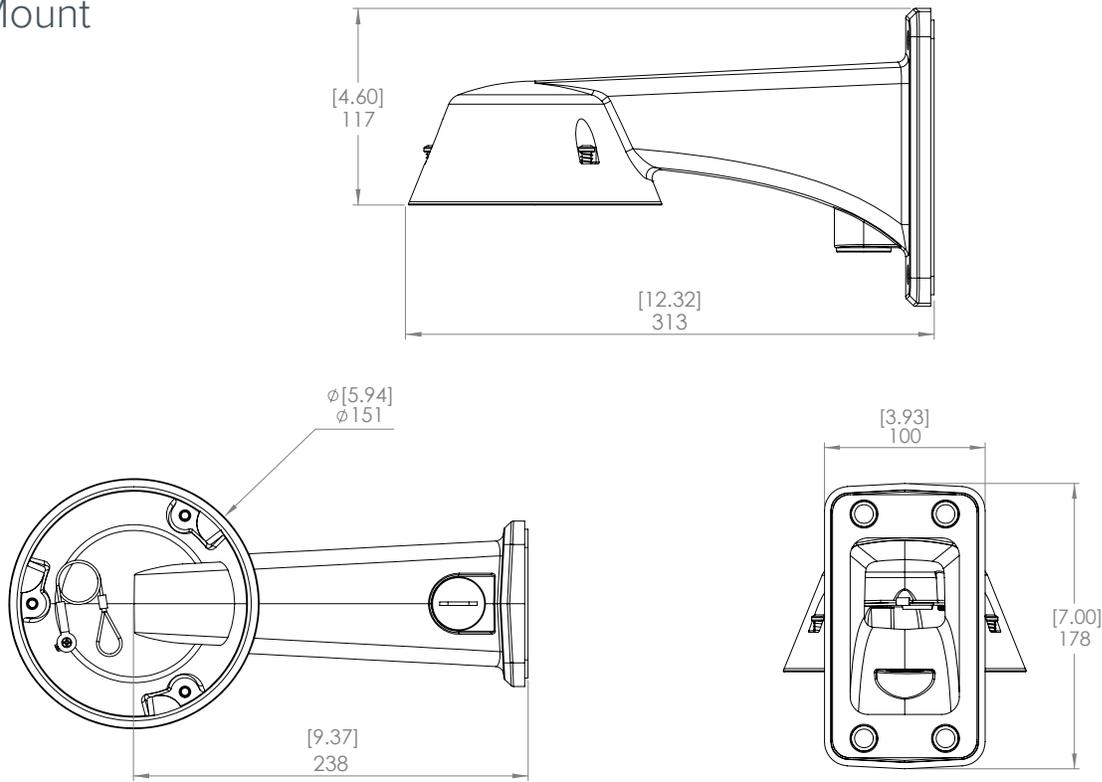| SUPPORTED VIDEO ANALYTICS EVENTS AT HOME POSITION	Objects in Area	The event is triggered when the selected object type moves into the region of interest
	Object Loitering	The event is triggered when the selected object type stays within the region of interest for an extended amount of time.
	Objects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

X	INCHES
[X.X]	MM

Camera

NPT Mount

Wall Mount

Ordering Information

CAMERAS	DESCRIPTION	MP	ZOOM	IR RANGE	ANALYTICS	WDR	LIGHTCATCHER
1.0C-H4IRPTZ-DP45	1MP H4 IR PTZ, 45X, Self-learning analytics, IK10, IP66, 250m IR	1	45	250m (820feet)	Yes	Yes	Yes
2.0C-H4IRPTZ-DP30	2MP H4 IR PTZ, 30X, Self-learning analytics, IK10, IP66, 250m IR	2	30	250m (820feet)	Yes	Yes	Yes
1.0C-H4IRPTZ-DP45-WP	1MP H4 IR PTZ with Wiper 45X, Self-learning analytics, IK10, IP66, 250m IR	1	45	250m (820feet)	Yes	Yes	Yes
2.0C-H4IRPTZ-DP30-WP	2MP H4 IR PTZ, with Wiper 30X, Self-learning analytics, IK10, IP66, 250m IR	2	30	250m (820feet)	Yes	Yes	Yes

ACCESSORIES	
IRPTZ-MNT-WALL1	Mount, Pend wall, IR PTZ
IRPTZ-MNT-NPTA1	Mount, Pend NPT Adapter, IR PTZ
POE-INJ2-95W-NA*	Single Port PoE Injector Gigabit, 95W, NA for use with H4IR PTZ - indoor installation rated. Temperature range of the PoE injector is -10C to +45C.
POE-INJ2-60W**	Single Port PoE Injector Gigabit, 60W, NA for use with H4IR PTZ - indoor installation rated. Temperature range of the PoE injector is -10C to +45C.
	Note: Use of 60W PoE injector reduces the temperature range of the camera. Please look at footnote
H4-MT-POLE1	Pole Mounting Bracket
H4-MT-CRNR1	Corner Mounting Bracket

* POE 95W injector: This model is provided with North American plug only; other regions may use certified power cord with C13 on one side and the country specific plug on the other side. Countries supported must accept one of the following certifications: UL, cUL, CE, VCCI, CCC, C-Tick.

** POE 60W injector: The camera will operate correctly in reduced temperature range from -10°C to +50°C (14°F to 122°F) with 60W POE. This POE injector model is provided with North American plug only; other regions may use certified power cord with C13 on one side and the country specific plug on the other side. Countries supported must accept one of the following certifications: UL, cUL, CE, VCCI, CCC, C-Tick, KC, EAC.