H4 PTZ Dome Camera Line
with Self-Learning Video Analytics

Pan-tilt-zoom (PTZ) cameras are a useful surveillance solution because of their ability to simultaneously cover wide areas and zoom in for finer details with a single camera. With the new Avigilon™ H4 PTZ, we are pushing the boundaries of the traditional PTZ camera by offering a high-performance camera with even greater zoom and evidentiary detail.

The Avigilon H4 PTZ camera line combines high-speed tracking and 360-degree coverage with excellent image quality, low-light performance and video analytics. The new H4 PTZ camera line is available in 1 and 2 megapixel (MP) camera resolutions in outdoor pendant and in-ceiling mount formats. The 1 MP PTZ camera has 45x zoom, while the 2 MP PTZ has a built-in 30x zoom lens for high-quality, detailed images from great distances.

This camera line is equipped with our patented LightCatcher™ technology, enabling exceptional color images in low light, as well as true wide dynamic range (WDR) for detailed images in both extreme brightness and darkness. It is also enabled with self-learning video analytics, for object tracking, alarm notifications and the ability to zoom in for key details.

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

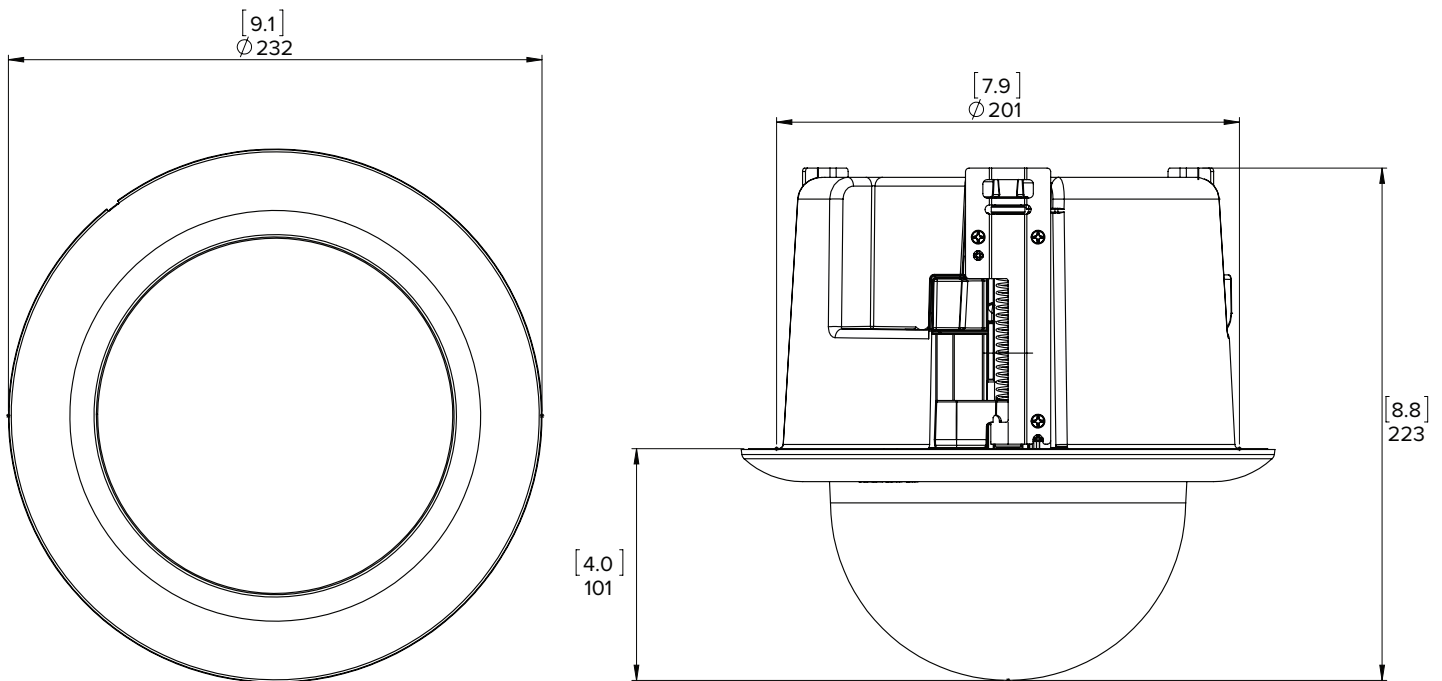| |
|---|
| 1 MP and 2 MP camera resolutions |
| 1 MP zooms up to 45x and 2 MP zooms up to 30x |
| Self-learning video analytics |
| Patented Advanced Video Pattern Detection and Teach by Example Technology |
| Patented High Definition Stream Management (HDSM) technology |
| Idle Scene Mode lowers bandwidth and storage usage if there are no motion events detected in the scene |
| Avigilon LightCatcher technology provides exceptional image quality in low-light environments |
| Avigilon HDSM SmartCodec technology for reduce bandwidth and storage requirements |
| Up to 60 fps high frame rate operation |
| IP67 certified for comprehensive dust and water ingress protection |
| True wide dynamic range (WDR) |

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)	
	Minimum Illumination	0.1 lux (F/1.6) in color mode; 0.03 lux (F/1.6) in monochrome mode	
	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	

		1.0 MP	2.0 MP
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
	API	ONVIF Profile S compliant (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
	Video Output	NTSC/PAL
	External I/O Terminals	Alarm In, Alarm Out
	Onboard Storage	SD/SDHC/SDXC slot – minimum class 4; class 6 or better recommended

		IN-CEILING MOUNT	PENDANT MOUNT
MECHANICAL	Dimensions (ØxH)	232 mm × 222.7 mm; 9.13" × 8.77"	226 mm × 313 mm; 8.9" × 12.32"
	Weight	2.18 kg; 4.85 lbs	3.9 kg; 8.6 lbs
	Dome Bubble	Nylon	
	Body	Plastic	Aluminum
	Housing	Recessed mount	Pendant mount
	Finish	Plastic, cool grey	Powder coat, cool grey
	Tilt	-10° to 90°, e-Flip, 360°/second	
	Pan	360°, endless, 450°/second	

ELECTRICAL	Power Consumption		23 W max with external power (24 V DC) or PoE+ (32 VA with 24 V AC power)	57 W max with external power (24 V DC) or High Power 60 W PoE++* 25.5 W max with PoE+ (80 VA with 24 V AC power)
	Power Source	External Power	V DC: 24 V +/- 10%; V AC: 24 Vrms +/- 10%, 50 or 60Hz	
		PoE*	IEEE 802.3at Class 4 PoE+	IEEE 802.3at Class 4 PoE+; High Power 60 W PoE++* (POE-INJ2-60W)
	Power Connector		2-pin terminal block	Waterproof 3-pin connector
	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.

		IN-CEILING MOUNT	PENDANT MOUNT
ENVIRONMENTAL	Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)	-40 °C to +50 °C (-40 °F to 122 °F) with external power or 60 W PoE -10 °C to +50 °C (14 °F to 122 °F) with IEEE 802.3at Class 4 PoE+ power
	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
	Environmental	(Pendant model only) IK10 Impact Rating, IEC 60529 IP66/IP67 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, EN 55032, KN 32, EN 55011
	Electromagnetic Immunity	EN 55024, EN 61000-6-1, EN 50130-4, KN 35

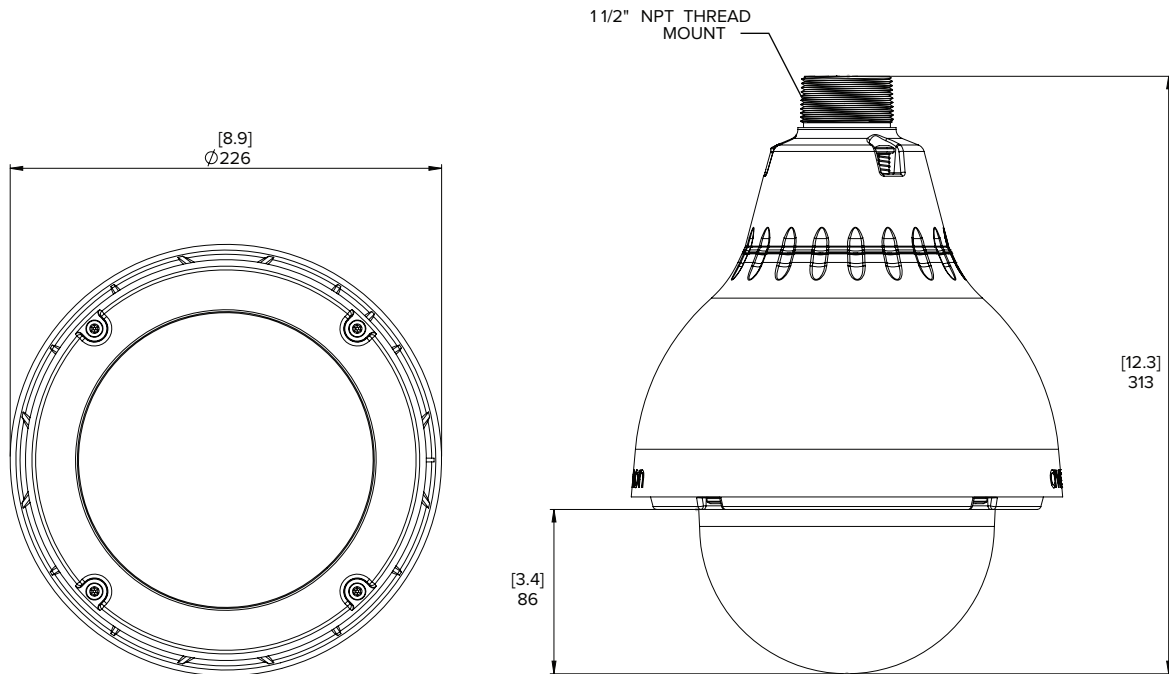|		
SUPPORTED VIDEO ANALYTICS EVENTS AT HOME POSITION	Objects in Area	The event is triggered when the selected object type moves into the region of interest.
	Object Loitering	The event is triggered when the selected object type stays within the region of interest for an extended amount of time.
	Objects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

In-Ceiling PTZ Dome Camera
(H4PTZ-DC)

[9.1]
⌀ 232

[7.9]
⌀ 201

[8.8]
223

[4.0]
101

[X.X]	INCHES
X	MM

Pendant PTZ Dome Camera

(H4PTZ-DP)

1 1/2" NPT THREAD MOUNT

[8.9]
Ø226

[12.3]
313

[3.4]
86

Ordering Information

IN-CEILING PTZ DOME CAMERAS	MP	WDR	LIGHTCATCHER TECHNOLOGY	ANALYTICS	LENS	ZOOM	HDSM SMARTCODEC
1.0C-H4PTZ-DC45	1.0	✓	✓	✓	4.3 to 129 mm	45x	✓
2.0C-H4PTZ-DC30	2.0	✓	✓	✓	4.3 to 129 mm	30x	✓

PTZMH-DC-CLER1	PTZ In-Ceiling Dome Camera Cover with Clear Bubble
PTZMH-DC-SMOK1	PTZ In-Ceiling Dome Camera Cover with Smoked Bubble
PTZMH-DC-CPNL1	Metal Ceiling Panel

PENDANT PTZ DOME CAMERAS	MP	WDR	LIGHTCATCHER TECHNOLOGY	ANALYTICS	LENS	ZOOM	IP66/IP67	HDSM SMARTCODEC
1.0C-H4PTZ-DP45	1.0	✓	✓	✓	4.3 to 129 mm	45x	✓	✓
2.0C-H4PTZ-DP30	2.0	✓	✓	✓	4.3 to 129 mm	30x	✓	✓

CM-MT-WALL1	Pendant wall mount
H4-MT-POLE1	Pole Mounting Bracket
H4-MT-CRNR1	Corner Mounting Bracket
PTZMH-DP-CLER1	Dome Camera Cover with Clear Bubble (IK10)
PTZMH-DP-SMOK1	Dome Camera Cover with Smoked Bubble (IK10)
POE-INJ2-60W	60W PoE Injector. Injector operational temperature range is -10ºC (14ºF) to 45ºC (113ºF).
POE-INJ2-PLUS	30W PoE+ Injector. Injector operational temperature range is -20ºC (-4ºF) to 40ºC (104ºF).