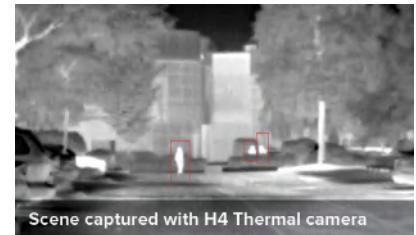


# H4 Thermal Camera with Self-Learning Video Analytics

The outdoor rated Avigilon H4 Thermal camera detects intruders while ignoring foliage and other visible obscurants, such as smoke and dust. It provides exceptional performance with the combination of thermal imaging and Avigilon's patented self-learning video analytics. The bullet-style, multi-environment design is outdoor ready and well suited for a wide range of applications such as perimeter protection for industrial sites and critical infrastructure, transportation and government.



Operating beyond the visible spectrum, the H4 Thermal camera line is designed to detect the movement of people and vehicles even in areas with poor visibility, challenging lighting conditions, absolute darkness and partly camouflaged scenes without the need for additional light sources. Through Avigilon self-learning video analytics, operators receive notification of detected activity that may require further investigation, helping them take decisive action when needed.

The H4 Thermal camera has a resolution of a 320x256 with an uncooled thermal sensor and a durable, vandal resistant, IP66 and IK10 rated housing built for extended life in challenging weather and climate conditions.

## KEY FEATURES

- 320x256 resolution uncooled thermal sensor
- Patented Advanced Video Pattern Detection and Teach by Example Technology
- Combined thermal imaging and Avigilon self-learning analytics provide greater accuracy and reduce false alarms in complex lighting, environmental or weather conditions without the need for additional light sources.
- Detect and classify objects regardless of lighting, darkness or extreme environments such as weather, dust, debris, smoke or foliage.
- Available with 4.3mm, 9.1mm or 18 mm F1.0 athermalized lens
- Wifi camera configuration support
- Advanced image processing to enhance details and optimize images for a variety of scene conditions and dynamic range
- HDSM SmartCodec™ Technology lowers bandwidth and storage usage
- Built for challenging outdoor environment providing continuous operating temperature of up to 65C, IP66 certified for comprehensive dust and water ingress protection and IK10 impact rating.
- ONVIF® compliant

# Specifications

		320S-H4A-THC-BO50	320S-H4A-THC-BO24	320S-H4A-THC-BO12
<b>IMAGE PERFORMANCE</b>	Image Sensor	320x256 Uncooled VOx Microbolometer		
	Pixel Pitch	12µm		
	Spectral Range	8µm to 14µm		
	Aspect Ratio	5:4		
	Imaging Rate	8.6Fps		
	Dynamic Range	-40 °C to 225 °C (-40 °F to 437 °F) [may vary based on operating temperature]		
	Resolution Scaling	320x256, can be scaled up to 640x512		
	3D Noise Reduction Filter	Yes		
	Sensitivity	NETD <60mK		
	Image Uniformity Optimization	Automatic Flat Field Correction (FFC) - Thermal and Temporal		
<b>LENS</b>	Lens	4.3mm, F1.0, Athermalized	9.1mm, F1.0, Athermalized	18.0mm, F1.0, Athermalized
	Angle of View (H x V)	45.9° x 36.5°	21.6° x 17.0°	10.8° x 8.4°
<b>IMAGE CONTROL</b>	Image Compression Method	H.264 (MPEG-4 Part 10/AVC), Motion JPEG		
	Streaming	Multi-stream H.264 & MJPEG		
	Bandwidth Management	Idle Scene Mode, HDSM SmartCodec Technology		
	Motion Detection	Pixel and Classified Objects		
	Tamper Detection	Yes		
	Privacy Zones	Up to 64 Zones		
	Audio Compression Method	G.711 PCM 8kHz		
	Audio Input/Output	Line level input and output		
	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		
	Protocols	IPv6, 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>	Dimensions (LxWxH)	126 mm x 281 mm x 91 mm; 4.97" x 11.08" x 3.58" (including mounting bracket)	
Weight:		Camera	1.72kg (3.79 lbs)	
		Mounting Bracket	0.21 kg (0.46 lbs)	
Body		Aluminium		
Housing		Surface mount, tamper resistant		
Finish		Powder coat, RAL 9003		
Adjustment Range		±175° pan, ±90° tilt, ±175° azimuth		
Onboard Storage		SD/SDHC/SDXC slot – minimum class 4; class 6 or better recommended		
<b>ELECTRICAL</b>	Power Consumption	8W		
	Power Source	VDC: 12V +/- 10%, 8W min. VAC: 24V +/- 10%, 15VA min. PoE:IEEE802.3af Class 3 compliant		
	RTC Backup Battery	3V manganese lithium		
<b>ENVIRONMENTAL</b>	Operating Temperature	-40 °C to +65 °C (-40 °F to 149 °F)		
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)		
	Humidity	0 - 93% non-condensing		
<b>CERTIFICATIONS</b>	Certifications/Directives	UL, cUL, CE, ROHS, WEEE, RCM, EAC		
	Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1		
	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		
	Electromagnetic Immunity	EN 55024, EN 61000-6-1, EN 50130-4		
	Directives	RoHS, Reach (SVHC), WEEE		

**SUPPORTED VIDEO ANALYTIC 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.

**CLASSIFIED OBJECT DETECTION RANGE**

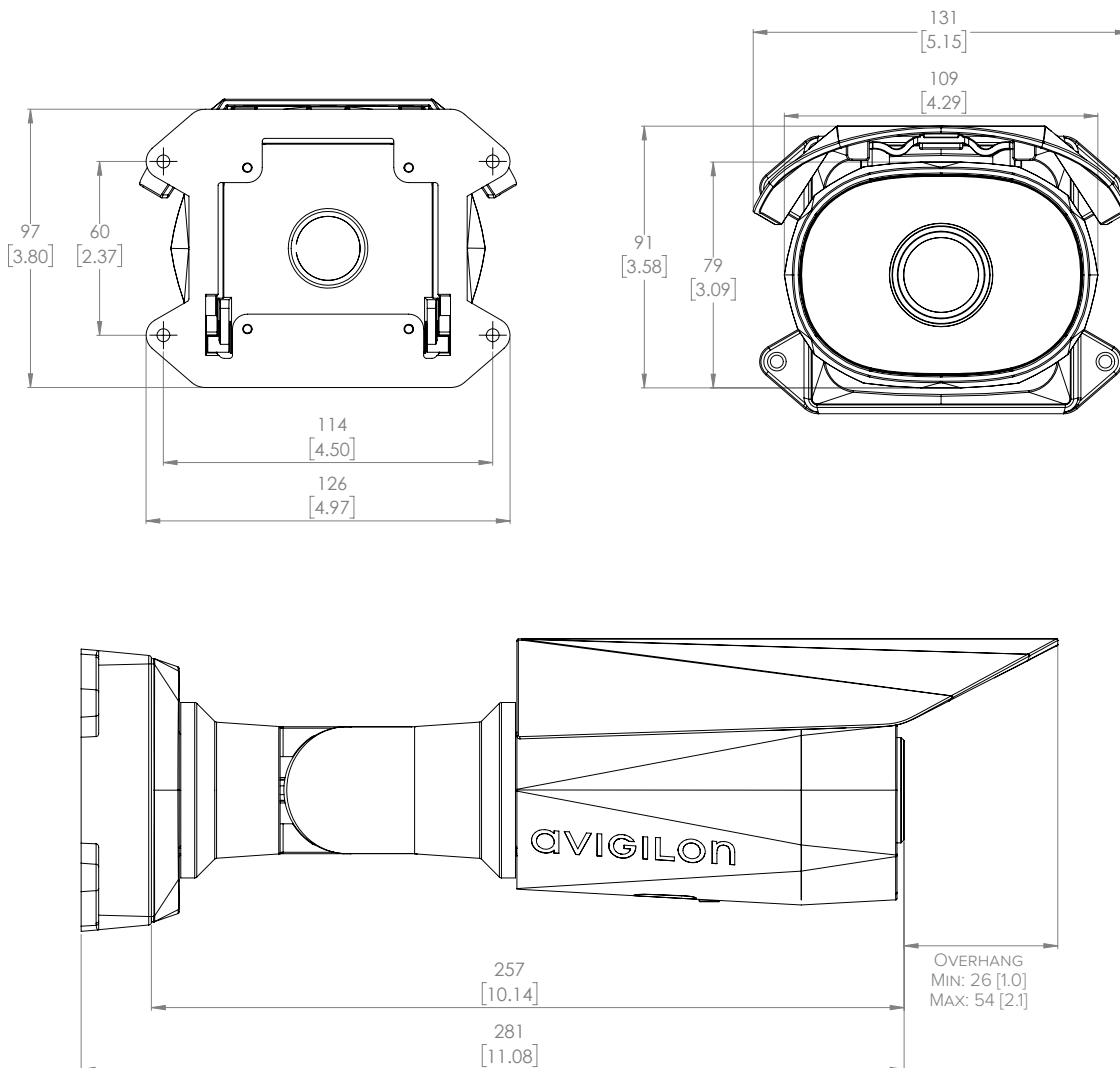
FOCAL LENGTH	VIEWING ANGLE (H X V)	HUMAN	VEHICLE
4.3 mm	45.9° x 36.5°	68m (224')	80m (263')
9.1 mm	21.6° x 17.0°	150m (493')	160m (525')
18 mm	10.8° x 8.4°	220m (722')	225m (739')

The detection ranges may vary in different weather conditions.

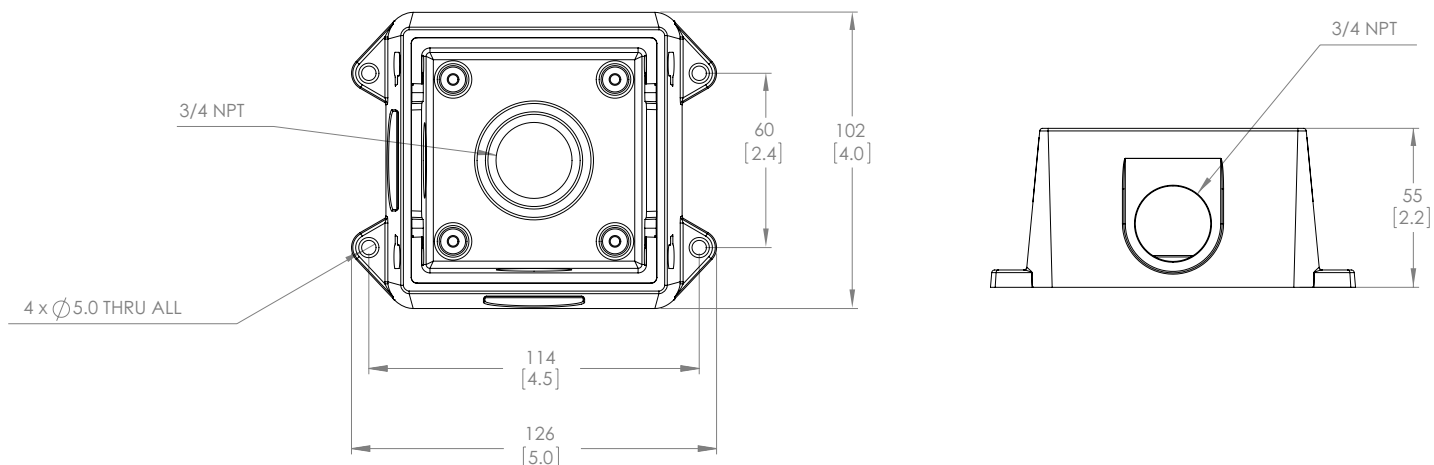
# Outline Dimensions

## Camera

X	MM
[X.X]	INCHES



# Junction Box



## Ordering Information

Camera Part number	Resolution	NETD	Lens	HDSM SmartCodec Technology
320S-H4A-THC-BO50	320 x 256	< 60 mK	4.3 mm	✓
320S-H4A-THC-BO24	320 x 256	< 60 mK	9.1 mm	✓
320S-H4A-THC-BO12	320 x 256	< 60 mK	18 mm	✓

H4-BO-JBOX1	Junction box for H4A-BO H4 HD Bullet Cameras
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
H4-AC-WIFI2-NA	USB Wifi Adapter
H4-AC-WIFI2-EU	USB Wifi Adapter