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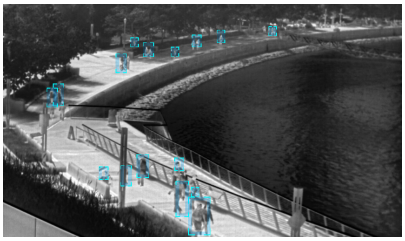
H4 Thermal Camera

VGA QVGA



Scenes captured with H4 Thermal VGA camera.

Features

SELF-LEARNING VIDEO ANALYTICS
Detect and classify objects in challenging lighting/ darkness or extreme environments such as weather, dust, debris, smoke or foliage

HDSM SMARTCODEC™ TECHNOLOGY
Optimizes compression levels for regions in a scene to help maximize bandwidth savings

ONVIF® COMPLIANT
Native ONVIF Profile S and Profile T compliance allows easy integration with existing ONVIF infrastructures

MULTIPLE LENS OPTIONS
Choose from three athermalized lens variants to optimize on-site coverage requirements

AUDIO AND RELAY I/O CONNECTIONS
Incorporate audio and configure input/output actions and alarms for fast event response

MADE IN NORTH AMERICA*
Manufactured with North American expertise and globally sourced parts, to enable product quality control and accelerate the speed at which we go from innovation, to prototyping, to final product and delivery

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* With manufacturing facilities in both the United States and Canada, our "Made In North America" claim only applies to products from our Plano, Texas and Richmond, British Columbia facilities.

Specifications

			QVGA			VGA		
IMAGE PERFORMANCE	Image Sensor		320x256 Uncooled VOx Microbolometer			640x512 Uncooled VOx Microbolometer		
	Pixel Pitch		12µm					
	Spectral Range		8µm to 14µm					
	Aspect Ratio		5:4					
	Imaging Rate		8.6 fps					
	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			640x512, can be scaled down to 320x256		
	3D Noise Reduction Filter		Yes					
	Sensitivity		NETD <60mK					
	Image Uniformity Optimization		Automatic Flat Field Correction (FFC) - Thermal and Temporal					
LENS	Lens		4.3 mm, F1.0, Athermalized	9.1 mm, F1.0, Athermalized	18.0 mm, F1.0, Athermalized	8.7 mm, F1.0, Athermalized	18.0 mm, F1.0, Athermalized	36.0 mm, F1.0, Athermalized
	Angle of View (H x V)		45.9° x 36.5°	21.6° x 17.0°	10.8° x 8.4°	50.7° x 40.4°	24.3° x 19.3°	12.2° x 9.7°
IMAGE CONTROL	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			N/A		
	Privacy Zones		Up to 64 Zones					
	Audio Compression Method		G.711 PCM 8kHz					
NETWORK	Network		100BASE-TX					
	Cabling Type		CAT5					
	Connector		RJ-45					
	ONVIF		ONVIF® compliant with Profile S and Profile T (www.onvif.org)					
	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, 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					
PERIPHERALS	USB Port		USB 2.0					
	Onboard Storage		SD/SDHC/SDXC slot – minimum class 4; class 6 or better recommended					
	External I/O Terminals		Alarm In, Alarm Out					
	Audio Input/Output		Line level input and output					
MECHANICAL	Dimensions (LxWxH)		335 mm x 126 mm x 91 mm; 13.18" x 4.97" x 3.58" (including mounting bracket and fully extended sunshield overhang)					
	Weight	Camera	1.72 kg (3.79 lbs)					1.92 kg (4.23 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					
ELECTRICAL	Power Consumption		8W			9W		
	Power Source		VDC: 12V +/- 10%, 8W min. VAC: 24V +/- 10%, 15VA min. PoE: IEEE802.3af Class 3 compliant			VDC: 12V +/- 10%, 9W min. VAC: 24V +/- 10%, 15VA min. PoE: IEEE802.3af Class 3 compliant		
	RTC Backup Battery		3V manganese lithium					
ENVIRONMENTAL	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					
CERTIFICATIONS	Certifications/Directives		UL, cUL, CE, ROHS, WEEE, RCM, EAC			UL, cUL, CE, ROHS, WEEE, RCM		
	Safety		UL 62368-1, CSA 62368-1, IEC/EN 62368-1					
	Environmental		UL/CSA/IEC 60950-22, IEC 60529 IP66 Weather Rating, IK10 Impact Rating (including window)			UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating, IK10 Impact Rating (enclosure only)		
	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			EN 55024, EN 61000-6-1		
	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

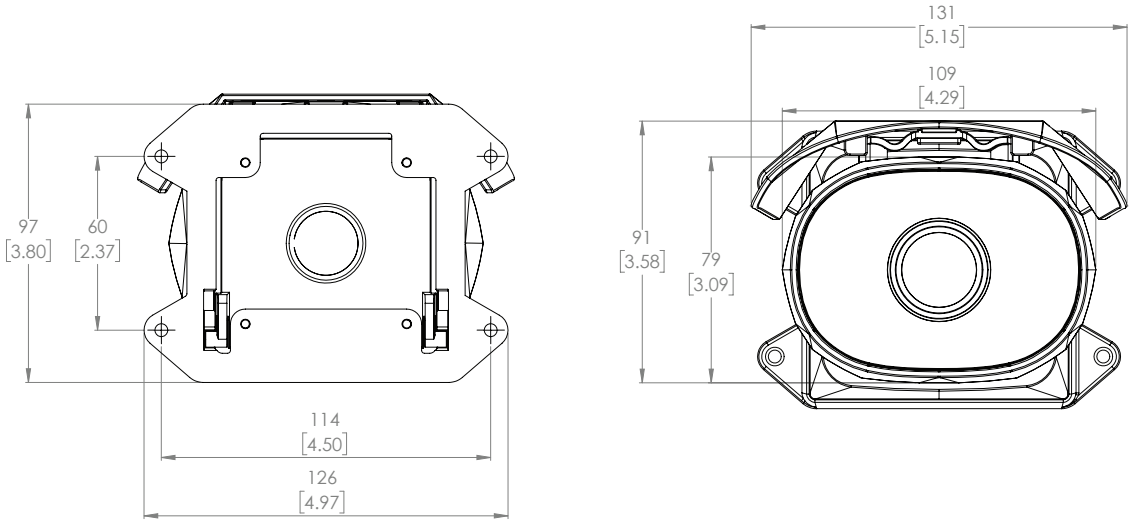
FOCAL LENGTH	RESOLUTION	VIEWING ANGLE (H X V)	HUMAN	VEHICLE
4.3 mm	320 x 256	45.9° x 36.5°	68m (224')	80m (263')
9.1 mm	320 x 256	21.6° x 17.0°	150m (493')	160m (525')
18 mm	320 x 256	10.8° x 8.4°	220m (722')	225m (739')
8.7 mm	640 x 512	50.7° x 40.4°	95m (310')[1]	110m (360')[1]
18 mm	640 x 512	24.3° x 19.3°	210m (690')[1]	225m (740')[1]
36 mm	640 x 512	12.2° x 9.7°	305m (1000')[1]	310m (1020')[1]

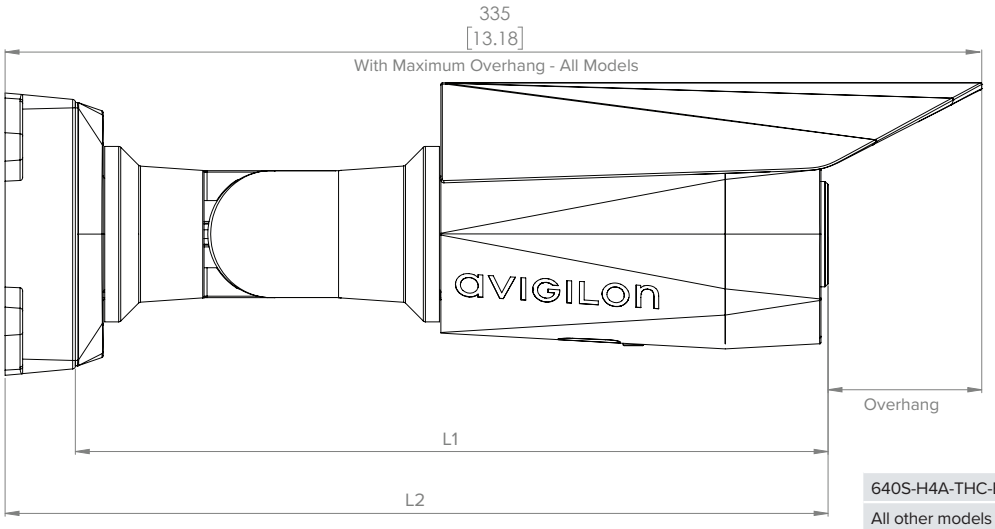
The detection ranges may vary in different weather conditions.

Outline Dimensions

X	MM
[X.X]	INCHES

Camera

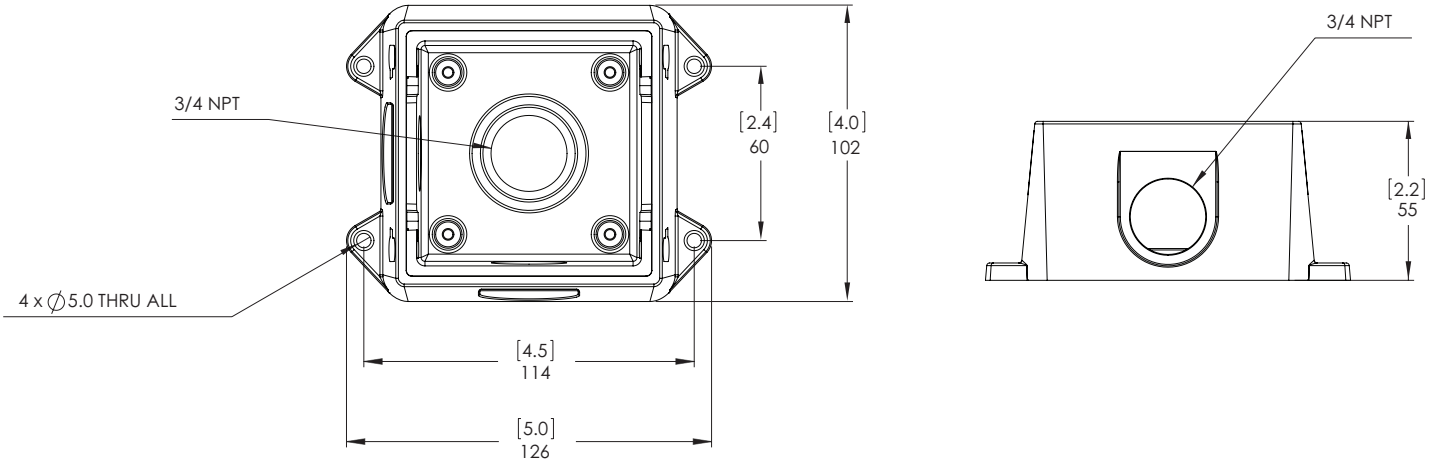




	L1	L2
640S-H4A-THC-BO12	276 mm (10.87")	300 mm (11.81")
All other models	257 mm (10.14")	281 mm (11.08")

[1]This is a preliminary datasheet and is subject to change. Specifications marked with [1] are subject to change in the final product(s). Avigilon Corporation disclaims all responsibility and liability for the distribution of and/or reliance on this datasheet.

Junction Box



Ordering Information

	Resolution	NETD	Lens	HDSM SmartCodec
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	✓
640S-H4A-THC-BO50	640 x 512	< 60 mK	8.7 mm	✓
640S-H4A-THC-BO24	640 x 512	< 60 mK	18 mm	✓
640S-H4A-THC-BO12	640 x 512	< 60 mK	36 mm	✓

H4-BO-JBOX1	Junction box for H4 HD Bullet Cameras
H4-MT-POLE1	Aluminum pole mounting bracket
H4-MT-CRNR1	Aluminum corner mounting bracket
H4-AC-WIFI2-NA	USB Wifi Adapter
H4-AC-WIFI2-EU	USB Wifi Adapter