H4 Thermal Camera Line

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, helping to keep internet connectivity costs down.

ONVIF® COMPLIANT
Built on an open platform to allow integration with other security solutions.

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

RELAY I/O CONNECTIONS
Configure input/output actions and alarms for fast event response.

MADE IN NORTH AMERICA
Manufactured in North America* using globally-sourced materials and North American expertise, Avigilon stands behind the quality of its products.

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)	ONVIF® compliant with Profile S (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)
	Weight — 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, Reach (SVHC), WEEE, RCM, EAC	UL, cUL, CE, ROHS, Reach (SVHC), 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

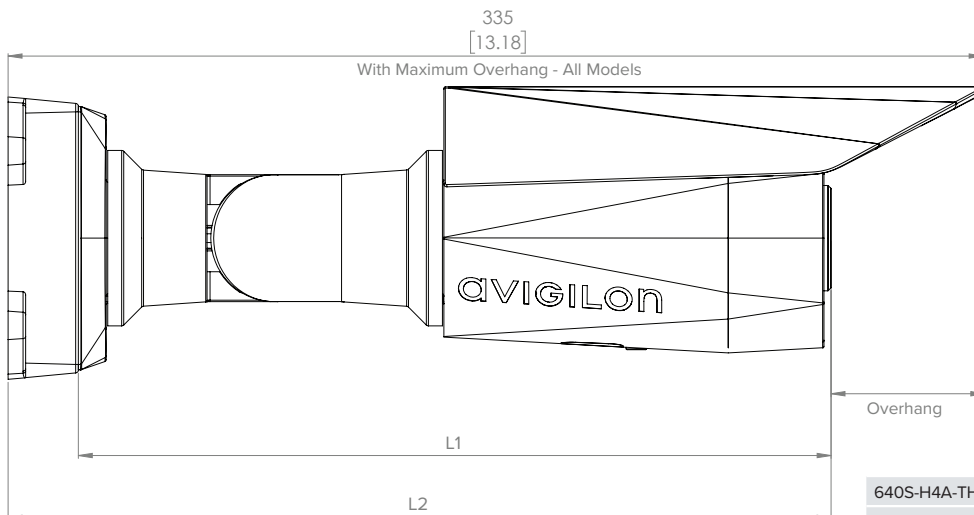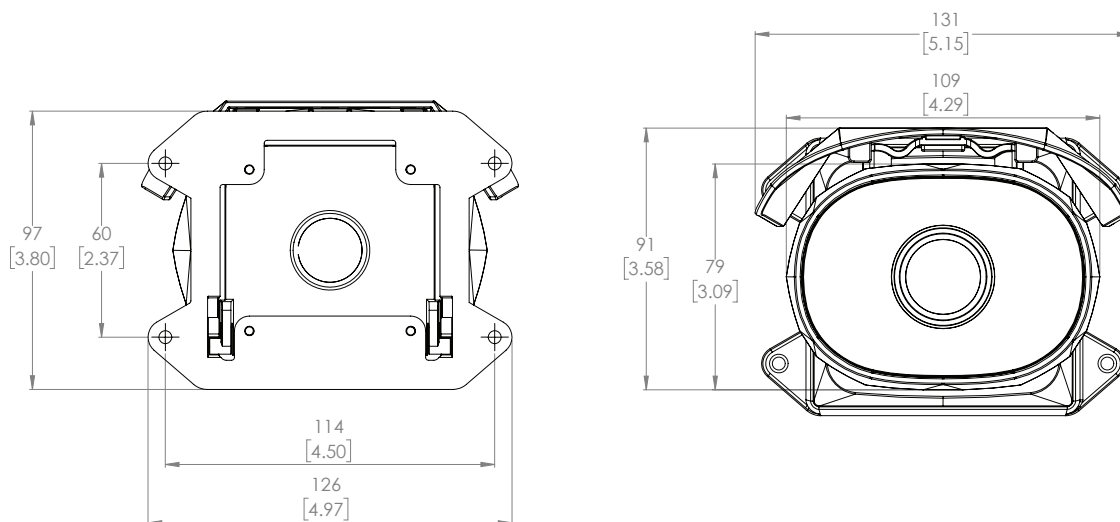| SUPPORTED VIDEO ANALYTIC EVENTS		
	Objects in Area	The event is triggered when the selected object type moves into the region of interest.
	Object Loitering	The event is triggered when the selected object type stays within the region of interest for an extended amount of time.
	Objects Crossing Beam	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°	120m (394')	142m (466')
18 mm	640 x 512	24.3° x 19.3°	210m (689')	225m (739')
36 mm	640 x 512	12.2° x 9.7°	310m (1017')	319m (1047')

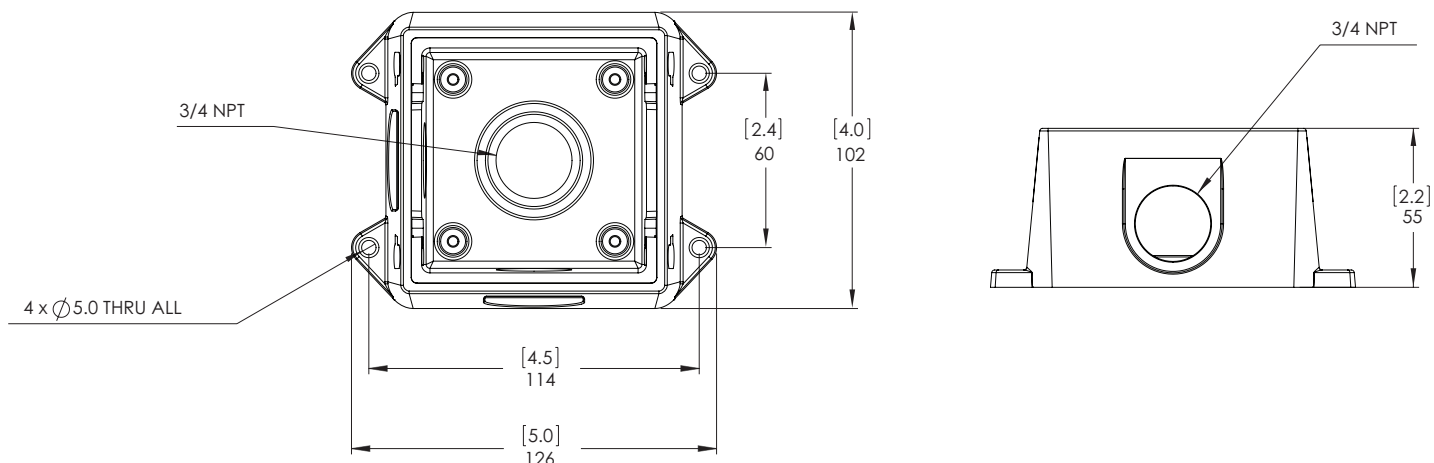The detection ranges may vary in different weather conditions.

Outline Dimensions

Camera

X	MM
[X.X]	INCHES

With Maximum Overhang - All Models

	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")

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