

H4 Thermal Camera Line









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.

* 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

Cations		QVGA			VGA			
Image Sensor		320x256 Uncooled	d VOx Microbolomete	er	640x512 Uncooled	VOx Microbolomete	۲	
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 Scalin	ıg	320x256, can be scaled up to 640x512 640x512, can be scaled down to 320x256						
3D Noise Reduct	tion Filter	Yes						
Sensitivity		NETD <60mK						
Image Uniformity Optimization Automatic Flat Field Correction (FFC) - Thermal and Temporal								
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° × 40.4°	24.3° x 19.3°	12.2° × 9.7°	
Imaga Comprass	tion Mothod							
	sion method			26				
	acmont			chology				
	-			echnology				
			d Objects		N/A			
					IN/A			
	ion Method							
Audio Compressi	ion method	O.7111 CIVI OKT12						
Network		100BASE-TX						
Cabling Type		CAT5						
Connector		RJ-45						
ONVIF		ONVIF [®] compliant	with Profile S and Pro	file T (www.onvif.org)	ONVIF® compliant	with Profile S (www.c	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 Protoc	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								
USB Port		USB 2.0						
Onboard Storage		SD/SDHC/SDXC sl	ot – minimum class 4	class 6 or better recor	nmended			
External I/O Terminals		Alarm In, Alarm Ou	t					
Audio Input/Output		Line level input and output						
Audio Input/Outp	out	Line level input and	d output					
Audio Input/Outp	put	Line level input and	d output					
Dimensions (LxW				" x 3.58" (including mo	unting bracket and full	y extended sunshiel	d overhang)	
				‴ x 3.58" (including mo	unting bracket and full	y extended sunshiel	d overhang) 1.92 kg (4.23 lbs)	
Dimensions (LxW	/xH)	335 mm x 126 mm		" x 3.58" (including mo	unting bracket and full	y extended sunshield		
Dimensions (LxW	/xH) Camera	335 mm x 126 mm 1.72 kg (3.79 lbs)		" x 3.58" (including mo	unting bracket and full	y extended sunshiel		
Dimensions (LxW Weight	/xH) Camera	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs)	x 91 mm; 13.18" x 4.97	" x 3.58" (including mo	unting bracket and full	y extended sunshiel		
Dimensions (LxW Weight Body	/xH) Camera	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium	x 91 mm; 13.18" x 4.97 1per resistant	" x 3.58" (including mo	unting bracket and full	y extended sunshiel		
Dimensions (LxW Weight Body Housing	/xH) Camera Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan	x 91 mm; 13.18" x 4.97 nper resistant 9003	" x 3.58" (including mo	unting bracket and full	y extended sunshiel		
Dimensions (LxW Weight Body Housing Finish Adjustment Rang	/xH) Camera Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt,	x 91 mm; 13.18" x 4.97 nper resistant 9003	" x 3.58" (including mo		y extended sunshiel		
Dimensions (LxW Weight Body Housing Finish	/xH) Camera Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W	x 91 mm; 13.18" x 4.97 nper resistant 9003 ±175° azimuth 3W min. VAC: 24V +/-		9W	W min. VAC: 24V +/-	1.92 kg (4.23 lbs)	
Dimensions (LxW Weight Body Housing Finish Adjustment Rang Power Consumpt	/xH) Camera Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W VDC: 12V +/- 10%, 8	x 91 mm; 13.18" x 4.97 1per resistant 9003 ±175° azimuth 3W min. VAC: 24V +/- lass 3 compliant		9W VDC: 12V +/- 10%, 9	W min. VAC: 24V +/-	1.92 kg (4.23 lbs)	
Dimensions (LxW Weight Body Housing Finish Adjustment Rang Power Consumpt Power Source RTC Backup Batt	/xH) Camera Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W VDC: 12V +/- 10%, 8 PoE: IEEE802.3af 0 3V manganese lith	x 91 mm; 13.18" x 4.97 nper resistant 9003 ±175° azimuth 3W min. VAC: 24V +/- Class 3 compliant ium		9W VDC: 12V +/- 10%, 9	W min. VAC: 24V +/-	1.92 kg (4.23 lbs)	
Dimensions (LxW Weight Body Housing Finish Adjustment Rang Power Consumpt Power Source RTC Backup Batt Operating Tempe	/xH) Camera Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W VDC: 12V +/- 10%, 8 PoE: IEEE802.3af C 3V manganese lith	x 91 mm; 13.18" x 4.97 nper resistant 9003 ±175° azimuth 3W min. VAC: 24V +/- Class 3 compliant ium 10 °F to 149 °F)		9W VDC: 12V +/- 10%, 9	W min. VAC: 24V +/-	1.92 kg (4.23 lbs)	
Dimensions (LxW Weight Body Housing Finish Adjustment Rang Power Consumpt Power Source RTC Backup Batt Operating Temper	/xH) Camera Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W VDC: 12V +/- 10%, 8 PoE: IEEE802.3af C 3V manganese lith -40 °C to +65 °C (-4 -10 °C to +70 °C (14	x 91 mm; 13.18" x 4.97 nper resistant 9003 ±175° azimuth 3W min. VAC: 24V +/- Class 3 compliant ium 10 °F to 149 °F) °F to 158 °F)		9W VDC: 12V +/- 10%, 9	W min. VAC: 24V +/-	1.92 kg (4.23 lbs)	
Dimensions (LxW Weight Body Housing Finish Adjustment Rang Power Consumpt Power Source RTC Backup Batt Operating Tempe	/xH) Camera Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W VDC: 12V +/- 10%, 8 PoE: IEEE802.3af C 3V manganese lith	x 91 mm; 13.18" x 4.97 nper resistant 9003 ±175° azimuth 3W min. VAC: 24V +/- Class 3 compliant ium 10 °F to 149 °F) °F to 158 °F)		9W VDC: 12V +/- 10%, 9	W min. VAC: 24V +/-	1.92 kg (4.23 lbs)	
Dimensions (LxW Weight Body Housing Finish Adjustment Rang Power Consumpt Power Source RTC Backup Batt Operating Temper	/xH) Camera Mounting Bracket Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W VDC: 12V +/- 10%, 8 PoE: IEEE802.3af C 3V manganese lith -40 °C to +65 °C (-4 -10 °C to +70 °C (14 0 - 93% non-conde	x 91 mm; 13.18" x 4.97 nper resistant 9003 ±175° azimuth 3W min. VAC: 24V +/- Class 3 compliant ium 10 °F to 149 °F) °F to 158 °F) ensing	10%, 15VA min.	9W VDC: 12V +/- 10%, 9 PoE: IEEE802.3af C	W min. VAC: 24V +/- lass 3 compliant	1.92 kg (4.23 lbs) 10%, 15VA min.	
Dimensions (LxW Weight Body Housing Finish Adjustment Rang Power Consumpt Power Source RTC Backup Batt Operating Temper Storage Temperations/Dimensional Certifications/Dimensional	/xH) Camera Mounting Bracket Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W VDC: 12V +/- 10%, 8 PoE: IEEE802.3af C 3V manganese lith -40 °C to +65 °C (4 -10 °C to +70 °C (14 0 - 93% non-conde	x 91 mm; 13.18" x 4.97 nper resistant 9003 ±175° azimuth 3W min. VAC: 24V +/- Class 3 compliant ium 10 °F to 149 °F) °F to 158 °F) ensing 6, Reach (SVHC), WEE	10%, 15VA min. E, RCM, EAC	9W VDC: 12V +/- 10%, 9 PoE: IEEE802.3af C	W min. VAC: 24V +/-	1.92 kg (4.23 lbs) 10%, 15VA min.	
Dimensions (LxW Weight Body Housing Finish Adjustment Rang Power Consumpt Power Source RTC Backup Batt Operating Tempera Storage Tempera Humidity	/xH) Camera Mounting Bracket Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W VDC: 12V +/- 10%, § PoE: IEEE802.3af C 3V manganese lith -40 °C to +65 °C (4 -10 °C to +70 °C (14 0 - 93% non-conder UL, cUL, CE, ROHS UL 62368-1, CSA 6	x 91 mm; 13.18" x 4.97 nper resistant 9003 ±175° azimuth 3W min. VAC: 24V +/- Class 3 compliant ium 40 °F to 149 °F) °F to 158 °F) ensing 5, Reach (SVHC), WEE 2368-1, IEC/EN 6236 0-22, IEC 60529 IP66	10%, 15VA min. E, RCM, EAC	9W VDC: 12V +/- 10%, 9 PoE: IEEE802.3af C UL, cUL, CE, ROHS UL/CSA/IEC 60950	W min. VAC: 24V +/- lass 3 compliant	1.92 kg (4.23 lbs) 10%, 15VA min. EE, RCM, EAC	
Dimensions (LxW Weight Body Housing Finish Adjustment Rang Power Consumpt Power Source RTC Backup Batt Operating Temper Storage Temperat Humidity Certifications/Dim Safety	/xH) Camera Mounting Bracket Mounting Bracket	335 mm x 126 mm 1.72 kg (3.79 lbs) 0.21 kg (0.46 lbs) Aluminium Surface mount, tan Powder coat, RAL ±175° pan, ±90° tilt, 8W VDC: 12V +/- 10%, 8 PoE: IEEE802.3af C 3V manganese lith -40 °C to +65 °C (4 -10 °C to +70 °C (14 0 - 93% non-conder UL, CL, CE, ROHS UL 62368-1, CSA 6 UL/CSA/IEC 6095C Impact Rating (inclu	x 91 mm; 13.18" x 4.97 nper resistant 9003 ±175° azimuth 3W min. VAC: 24V +/- Class 3 compliant ium 40 °F to 149 °F) °F to 158 °F) ensing 5, Reach (SVHC), WEE 2368-1, IEC/EN 6236 0-22, IEC 60529 IP66 Juling window)	10%, 15VA min. E, RCM, EAC 8-1	9W VDC: 12V +/- 10%, 9 PoE: IEEE802.3af C UL, cUL, CE, ROHS UL/CSA/IEC 60950 Rating, IK10 Impact	W min. VAC: 24V +/- lass 3 compliant Reach (SVHC), WEE -22, IEC 60529 IP66 Rating (enclosure or	1.92 kg (4.23 lbs) 10%, 15VA min. EE, RCM, EAC	
	Pixel Pitch Spectral Range Aspect Ratio Imaging Rate Dynamic Range Resolution Scalin 3D Noise Reduct Sensitivity Image Uniformity Image Uniformity Lens Angle of View (H Image Compress Streaming Bandwidth Mana Motion Detection Tamper Detection Privacy Zones Audio Compress Streaming Protocols Streaming Protocols Streaming Protocols Streaming Protocols Streaming Protocols Streaming Protocols Streaming Protocols Streaming Protocols	Image Sensor Pixel Pitch Spectral Range Aspect Ratio Imaging Rate Dynamic Range Resolution Scaling 3D Noise Reduction Filter Sensitivity Image Oniformity Optimization Lens Angle of View (H x V) Image Compression Method Streaming Bandwidth Management Motion Detection Privacy Zones Audio Compression Method Connector ONVIF Security Protocols Streaming Protocols Onvoice Management Protocols USB Port Onboard Storage External I/O Terminals	QVGAImage Sensor320x256 UncooledPixel Pitch12µmSpectral Range8µm to 14µmAspect Ratio5:4Imaging Rate8.6 fpsDynamic Range-40 °C to 225 °C (-4Resolution Scaling320x256, can be state3D Noise Reduction FilterYesSensitivityNETD <60mK	OVGA Image Sensor 320x256 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 with resolution Scaling 320x256, can be scaled up to 640x512 3D Noise Reduction Filter Yes Sensitivity NETD <60mK	OVGA Image Sensor 320x256 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 Resolution Scaling 320x256, can be scaled up to 640x512 3D Noise Reduction Filter Yes Sensitivity NETD <60mK	OVGA VGA Image Sensor 320x256 Uncooled VOx Microbolometer 640x512 Uncooled 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] 640x512 640x512 640x512 640x512 640x512 640x512 can be sc 3D Noise Reduction Filter Yes Sensitivity NETD <60mK	OVGA VGA 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 320x2 3D Noise Reduction Filter Yes Sensitivity NETD <60mK	

SUPPORTED	Objects in Area	The event is triggered when the	solocted object type moves into	the region of interest		
VIDEO ANALYTIC EVENTS	,	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.				
	FOCAL LENGTH	RESOLUTION	VIEWING ANGLE (H X V)	HUMAN	VEHICLE	
CLASSIFIED	4.3 mm	320 x 256	45.9° x 36.5°	68m (224')	80m (263')	
OBJECT DETECTION RANGE	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')	

12.2° x 9.7°

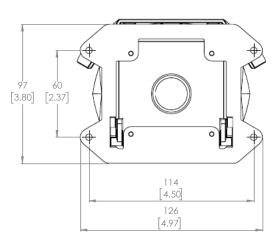
The detection ranges may vary in different weather conditions.

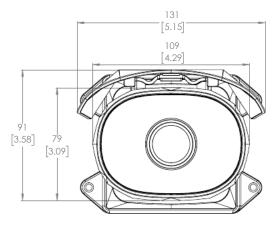
640 x 512

Outline Dimensions

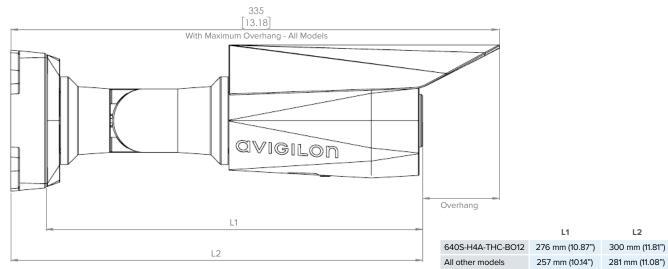
36 mm

Camera





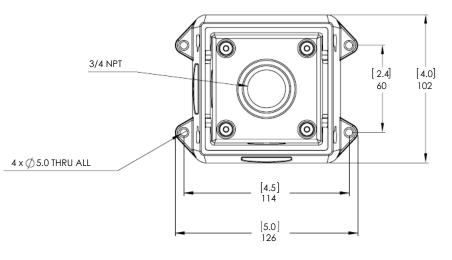
310m (1017')

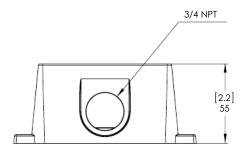




319m (1047')

Junction Box





Ordering Information

	Resolution	NETD	Lens	HDSM SmartCodec
320S-H4A-THC-BO50	320 x 256	< 60 mK	4.3 mm	\checkmark
320S-H4A-THC-BO24	320 x 256	< 60 mK	9.1 mm	\checkmark
320S-H4A-THC-BO12	320 x 256	< 60 mK	18 mm	\checkmark
640S-H4A-THC-BO50	640 x 512	< 60 mK	8.7 mm	\checkmark
640S-H4A-THC-BO24	640 x 512	< 60 mK	18 mm	\checkmark
640S-H4A-THC-BO12	640 x 512	< 60 mK	36 mm	\checkmark

H4-BO-JBOX1	Junction box for H4 HD Bullet Cameras
H4-BO-JBOXI	Junction box for H4 HD Builet 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

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