![avigilon™ — a Motorola Solutions Company]

H4 Thermal Elevated Temperature Detection (ETD) Solution

VGA

The Avigilon H4 Thermal Elevated Temperature Detection camera is embedded with edge-based analytics to detect faces, measure the temperature of the inner canthus region, and notify operators of elevated skin temperature*. It is designed to intelligently focus on a subject's face, ignoring irrelevant temperature signatures from surrounding sources. The temperature reading displays prominently over the bounding box on the detected face, highlighting elevated skin temperature events with a red bounding box.

This security-grade thermal camera, coupled with a blackbody uniform temperature source, provides a low friction, contactless alternative to traditional screening methods. The solution enables high-throughput pre-screening of people to detect elevated skin temperatures. The blackbody device acts as an absolute temperature reference point for the thermal camera.

Built to work seamlessly with Avigilon Control Center (ACC™), elevated temperature events can be configured in ACC along with complete end-to-end workflows for monitoring, assigning and acknowledgement of elevated temperature alarms. Powerful search tools enable you to quickly search through recorded video for elevated temperature events, so you can take action with an informed response.

Features

AUDIO CAPABILITIES
Available ports for external audio including sirens, microphones and/or loudspeakers for audio talk-down situations.

HDSM SMARTCODEC™ TECHNOLOGY
Optimizes compression levels for regions in a scene to help maximize bandwidth savings, helping to keep internet connectivity costs down.

EXPANDABLE STORAGE
Slot for either SD or MicroSD memory prevents loss of recorded video during network or server interruptions.

RELAY I/O CONNECTIONS
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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* Not a replacement for FDA-approved medical-grade devices or a professional medical opinion.

† 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.

Preliminary Specifications - Subject to Change

General Specifications

Accuracy	±0.5 °C (±0.9 °F) for ambient temperature 18 °C – 25 °C (65 °F – 77 °F)
Operating Temperature	18 °C to 25 °C (65 °F to 77 °F)

Camera Specifications

IMAGE PERFORMANCE	Image Sensor	640x512 Uncooled VOx Microbolometer
	Pixel Pitch	12µm
	Spectral Range	8µm to 14µm
	Aspect Ratio	5:4
	Imaging Rate	8.6 fps
	Sensitivity	NETD <60mK

LENS	Lens	8.7 mm, F1.0, Athermalized
	Angle of View (H x V)	50.7° x 40.4°

IMAGE CONTROL	Image Compression Method	H.264 (MPEG-4 Part 10/AVC), Motion JPEG, HDSM SmartCodec Technology
	Streaming	Multi-stream H.264 & MJPEG
	Bandwidth Management	Idle Scene Mode, HDSM SmartCodec Technology
	Privacy Zones	Up to 64 Zones
	Audio Compression Method	G.711 PCM 8kHz

NETWORK	Network	100BASE-TX
	Cabling Type	CAT5
	Connector	RJ-45
	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

PERIPHERALS	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)
		Mounting Bracket	0.21 kg (0.46 lbs)
	Environmental		IP66 weather rating

ELECTRICAL	Power Consumption	9W
	Power Source	PoE: IEEE802.3af Class 3 compliant

SUPPORTED VIDEO ANALYTIC EVENTS	Elevated Temperature	The event is triggered when estimated temperature from the hottest point of the face is higher than a set threshold.

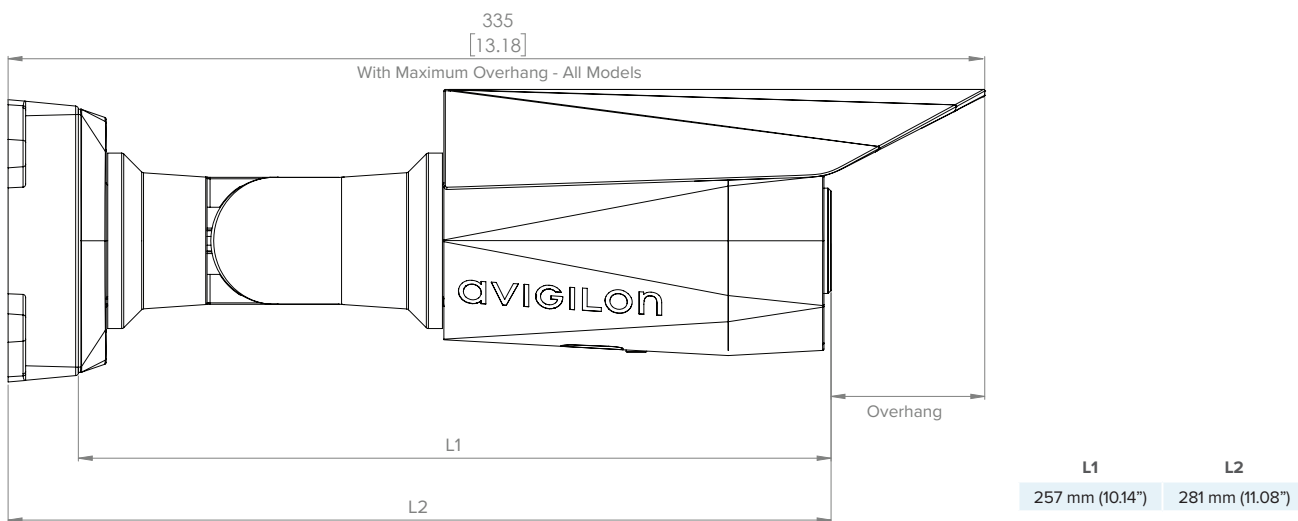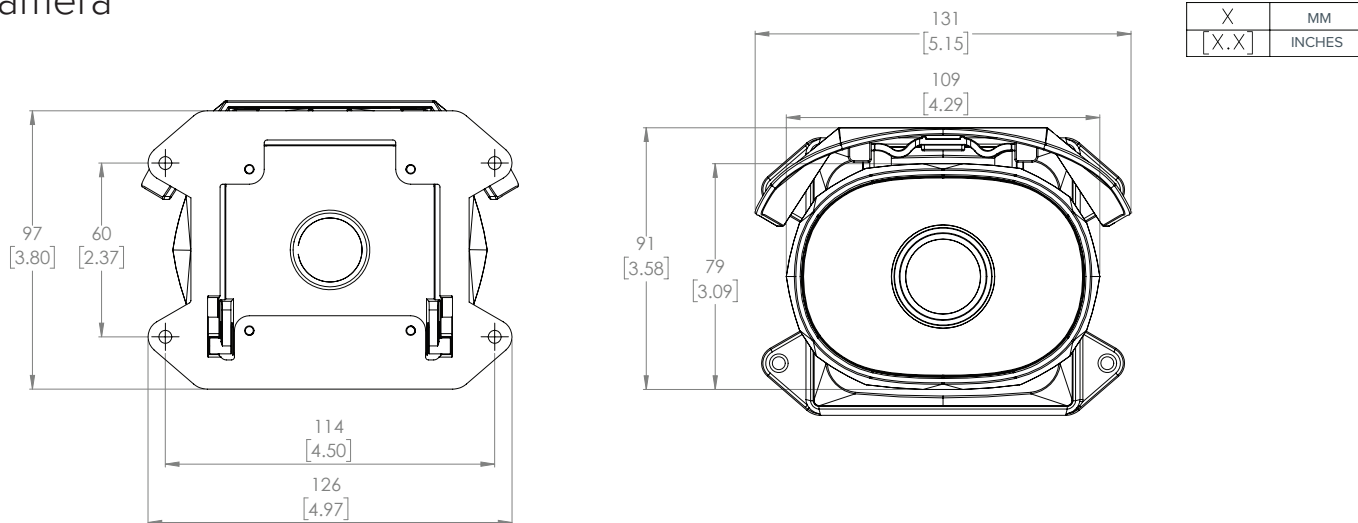| SUPPORTED CLASSIFIED OBJECT TYPES	Object Types	Face detection

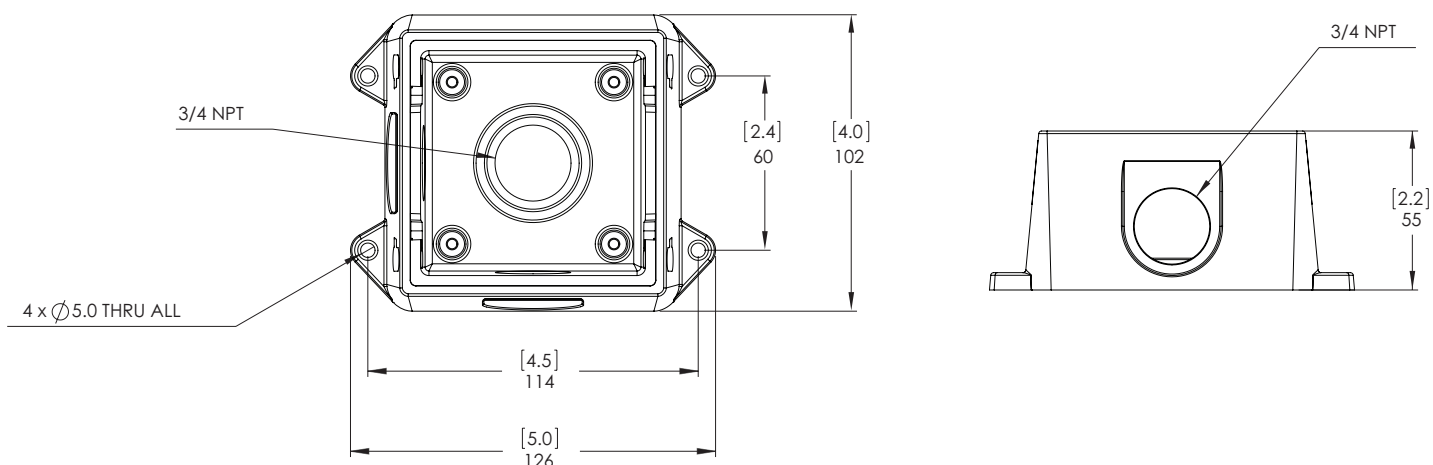| COMPATIBLE AVIGILON CONTROL CENTER (ACC) VERSIONS	ACC VERSION	SUPPORTED FEATURES
	7.8.x or higher	Temperature overlay on detected face and elevated temperature alerts.

Blackbody Specifications

Accuracy	±0.3 °C (±0.54 °F)
Power Supply	US - 120 VAC or 240 VAC
Mounting	1/4"-20 Tripod Mount

Outline Dimensions

Camera

X	MM
[X.X]	INCHES

131
[5.15]

109
[4.29]

97
[3.80]

60
[2.37]

91
[3.58]

79
[3.09]

114
[4.50]

126
[4.97]

335
[13.18]

With Maximum Overhang - All Models

aVIGILON

Overhang

L1

L2

L1	L2
257 mm (10.14")	281 mm (11.08")

Junction Box

3/4 NPT

3/4 NPT

[2.4]
60

[4.0]
102

[2.2]
55

4 x ⌀ 5.0 THRU ALL
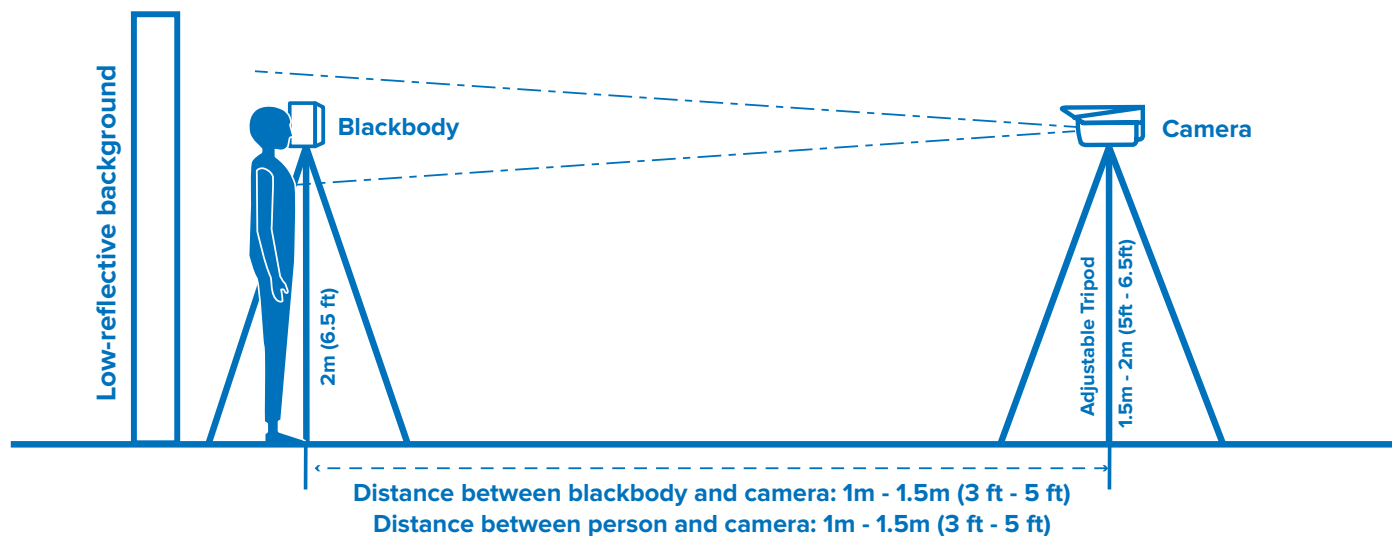
[4.5]
114

[5.0]
126

Installation Guidelines

- The H4 Thermal Elevated Temperature Detection solution is designed as an initial screening system of individuals for elevated skin temperature.

- The system should only be used in indoor environments with a stable ambient temperature between 18 °C to 25 °C (65 °F to 80 °F), and located in an area that is not subject to air drafts from radiator or HVAC systems.

- Install the solution with a neutral backdrop behind the target subject. The field of view of the camera should not be directed towards outdoor entrance or exit points, and not include thermally reflective surfaces or strong lighting.

- Refer to the installation diagram below for ideal camera and blackbody setup.
    - Height of camera: 1.5m - 2m (5 ft - 6.5 ft)
    - Height of blackbody: 1.5m - 2m (5 ft - 6.5 ft)
    - Distance between blackbody and camera: 1.5m (5 ft)
    - Distance between person and camera: 1.5m (5 ft)
    - The blackbody should be positioned such that it does not get occluded when a person steps in front of the camera for screening.

Preparing Individuals for Screening

The solution can only be used for screening one person at a time for elevated skin temperature.

- Ensure the person is acclimated to the indoor environment before stepping in front of the camera.

- To screen for elevated skin temperature the thermal camera must get a clear view of the inner canthus (tear duct) region. The person must not have any occlusion around the eye area: glasses should be removed, and any mask, hat, or headband should be clear of the eye area.

- Once in front of the camera, the person must look straight into the camera for 2-5 seconds.

- Blackbody must be located at approximately the same distance from the camera as the person.

Installation Diagram

Distance between blackbody and camera: 1m - 1.5m (3 ft - 5 ft)
Distance between person and camera: 1m - 1.5m (3 ft - 5 ft)

Preliminary Specifications - Subject to Change