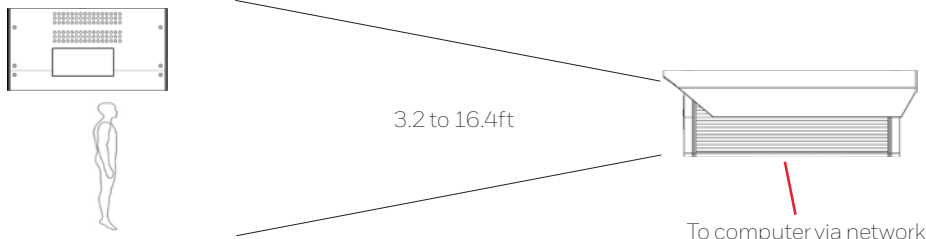# MODUM

High Accuracy Standoff Body Temperature Screening System

The Modum is a highly accurate body temperature screening solution that offers initial body temperature measurement for triage use. When deployed with the Blackbody device in its field of view (supplied), the Modum Camera is accurate to within 0.54°F making it perfect for abnormal body temperature screening requirements.

CAMERA

The Modum kits are designed to be deployed as standalone systems (or as part of a networked system) allowing a portable and rapid deployment.
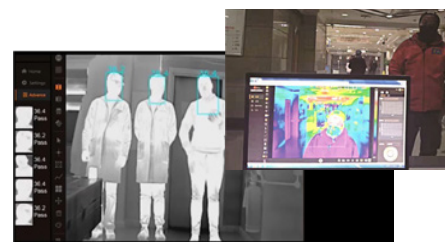
The Fixed Modum twins a highly accurate thermal camera with a 1080p daylight camera allowing for the quick identification and recording of the source of the trigger. This makes it perfect to integrate alongside a Face Detection or Facial Recognition capabilities.

3.2 to 16.4ft

To computer via network

BLACKBODY

MODUM SOFTWARE

MARKET OPPORTUNITIES

The Modum kits are the perfect solution for initial body temperature measurement to control and secure entrance to airports, schools and universities, government public offices, shops, restaurants, museums and other facilities. The Modum kits are designed to be used as part of NDAA Section 889 compliant systems*.

FEATURES AND BENEFITS

Heat measurement up to 16.4ft away	Secondary HD visible camera	Complete kits available with Blackbody device for rapid deployment
High accuracy (0.54°F)	High 640x512 and low 384x288 resolution options	Paired blackbody for temperature reference
Can be used as part of NDAA Section 889 compliant systems*	SDK support	

The Silent Sentinel Modum body temperature camera is not FDA approved. However, it is marketed in accordance with the April 2020 FDA 'Enforcement Policy for Telethermographic Systems During the Coronavirus Disease 2019 (COVID-19) Public Health Emergency.

The following instructions should be observed:

1. The Modum camera should always be used with an accurate blackbody temperature reference source.

2. Guidelines set forth in ISO/TR 13154: 2017: Medical electrical equipment — Deployment, implementation and operational guidelines for identifying febrile humans using a screening thermograph should be observed.

3. The Modum camera system should be used for initial body temperature assessment for triage use.

4. The system should be used to measure only one subject's temperature at a time.

5. Following the identification of an individual with an elevated temperature through the triage process, any elevated body temperature measurement should be confirmed with secondary evaluation methods (e.g., non-contact infrared thermometer (NCIT) or clinical grade contact thermometer). The measurement from the Modum system should not be solely or primarily relied upon to diagnose or exclude a diagnosis of COVID-19, or any other disease.

*: Applicable for all products manufactured from Oct 2020

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VISION & MOTION CONTROL

MODUM BODY TEMPERATURE DETECTION SYSTEM

Technical Specifications

GENERAL

Part Number	FD384H	FD640H
Lens	7.8mm	15mm
Field of View	47.0º(H) to 35.6º(V)	33.3º (H) to 27.0º (V)
Detector	VOx uncooled thermal FPA	
Resolution	384x288	640x512
Pixel Size	17µm	14µm
Spectral Band	8 to 14µm (LWIR)	
Sensitivity	<40mK @ 25ºC, F1.0	
Frequency	50Hz	
Measurement Range	1-5m (3.2-16.4ft)	

THERMAL IMAGE

Image Adjustments	Brightness, Contrast. Manual/Auto
Polarity	Hot / Cold (colour related to the chosen palette)
Palette	16 Colour Palettes
Focus	Electronic Autofocus, Manual Focus
Image Process	NUC / DDE / Digital Filtering Noise Reduction
Image Flip	Left-Right / Up-Down / Diagonal
Region Of Interest	Yes

TEMPERATURE MEASUREMENT

Range	0ºC~60ºC (32ºF~140ºF)
Accuracy	±0.5ºC (0.9ºF) at 33~42ºC (91.4~107.6ºF) of target temperature ±0.3ºC (0.54ºF) with blackbody
Working Temp.	16~32ºC (60.8~89.6ºF) with 0.3ºC (0.54ºC) accuracy with blackbody
Measurement Tools	Heat Measurement Box (drawn on screen)
Time to Stabilise	Camera: < 10 minutes, Blackbody < 5 minutes
Measur. Stable Time	≤10s (fastest)
Image Flip	Manual / Auto Correction

VISIBLE CAMERA

Focal Length	8mm Fixed lens
Image Sensor	1/2.8" CMOS (2.13MP)
Resolution	1920 x 1080
Field of View (Horiz)	39º
Focus	Fixed
Minimum Sensitivity	0.1 lux

IMAGE PRESENTATION

Video Output	IP RTSP / SDK Integration
Video over IP	ONVIF streams ~ Thermal only, Visible Only, Thermal with Visible Picture in Picture (PiP)

TELEMETRY

Protocols	SDK/Custom IP Alerts* and ONVIF Motion Start Alert for Temperature Alarm**

*To allow integrated custom IP protocols   **Delivery by SSL ONVIF bridge software

PHYSICAL CHARACTERISTICS

	CAMERA	BLACKBODY
Input Voltage	24VDC (Nominal)	110-240VAC
Power Consumption	Typical: 53W, Peak:100W	Peak: 260W
Weight	5kg / 12.2lb	1.5kg / 3.3lb
Size (HxWxD)	32.29" x 7.68" x 10.24"	4.33" x 5.91" x 7.68"
Housing	Matt black (RAL7005) Iridited alumini-um, powder marine grade paint finish	White

INTERFACES

Ethernet	Command and control of all functions including streaming of H.264 Video
Connectors	Stand Unit (1x RJ45, 1x 2.5mm DC Jack).

ENVIRONMENTAL

	CAMERA	BLACKBODY
IP Rating	IP55	IP42
Temperature Range	-30~65ºC (-22~149ºF)	-5~100ºC (23~212ºF)

COMPUTER HARDWARE REQUIREMENTS

CPU / RAM	I5 (or equivalent)* / 8GB
Operating System	Windows 10
Monitor Resolution	HD
Hard Drive	Minimum 256GB

* The CPU processer should have a score greater than 7500 from the following Website: www.cpubenchmark.net

ORDERING INFORMATION

TEMPERATURE DETECTOR - BASIC CONTENT
Modum body temperature detection camera (384x288, 7.8mm lens or 640x512, 15mm lens), Blackbody, Modum PSU, 16.4ft cable assembly

HRCF-FD384H	Temperature Detector 7.8mm with (A), (B)
HRCF-KIT-FD384H	Temp. Detector 7.8mm - kit / tripod with (A), (C), (E), (F), (G)
HRCF-KIT2-FD384H	Temp. Detector 7.8mm - kit / tripod (no laptop) with (A), (B), (E), (F), (G)
HRCF-KIT-FD384H-T	Temp. Detector 7.8mm - kit / trolley with (A), (C), (E), (F), (H)
HRCF-KIT2-FD384H-T	Temp. Detector 7.8mm - kit / trolley (no laptop) with (A), (B), (E), (F), (H)
HRCF-FD640H	Temperature Detector 15mm with (A), (B)
HRCF-KIT-FD640H	Temp. Detector 15mm - kit / tripod with (A), (C), (E), (F), (G)
HRCF-KIT2-FD640H	Temp. Detector 15mm - kit / tripod (no laptop) with (A), (B), (E), (F), (G)
HRCF-KIT-FD640H-T	Temp. Detector 15mm - kit / trolley with (A), (C), (E), (F), (H)
HRCF-KIT2-FD640H-T	Temp. Detector 15mm - kit / trolley (no laptop) with (A), (B), (E), (F), (H)

ACCESSORIES & OPTIONS

N/A	(A)	Modum camera wall mount
N/A	(B)	Software on a USB flash drive
HRCF-LAPTOP	(C)	Modum laptop (pre-configured)
HRCF-TRIPODM	(D)	Modum camera tripod
HRCF-TRIPODB	(E)	Blackbody tripod
HRCF-WMB	(F)	Blackbody wall mount
HRCF-CC	(G)	Modum carry case
HRCF-TROLLEY	(H)	Modum system trolley

For more information
www.security.honeywell.com

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