THERMAL FIREFIGHTING

Handheld - Aerial - Fixed Mounted

FLIR THERMAL IMAGING CAMERAS

GET THE MOST COMPREHENSIVE VIEW FROM INSIDE, OUTSIDE, AND ABOVE THE SCENE

Visibility is a chief concern for maintaining firefighter safety, whether you're in the thick of fighting a fire or coordinating resources as the incident commander. Thanks to the FLIR lineup of cost-effective handhelds, and mounted or UAS aerial thermal imaging options, fire departments can now afford to outfit more firefighters with TICs and monitor all angles of the scene.

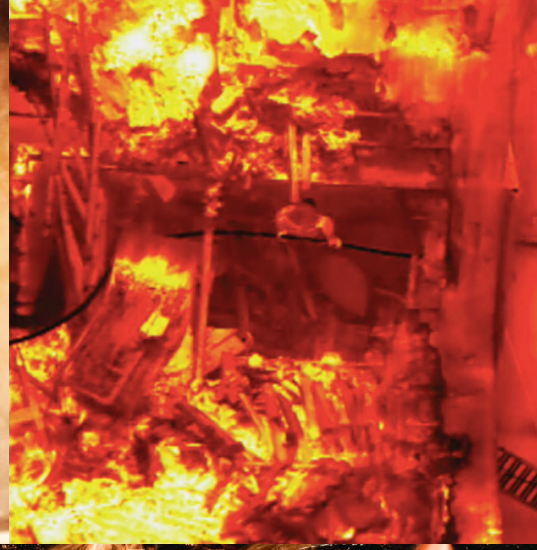
This is about more than seeing through a smoke-filled room: viewing the entire scene from multiple viewpoints helps incident commanders make better decisions. And, since FLIR TICs clearly visualize heat sources, they're also an important tool for hazmat and search-and-rescue operations.

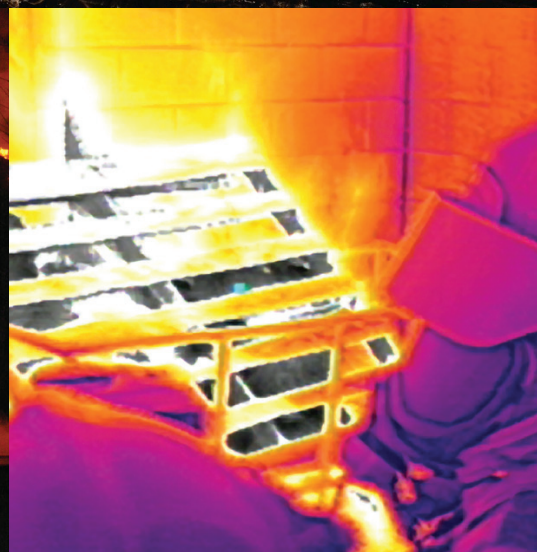
With FLIR handheld, drone-mounted, and truck-mounted TICs, you get:

- **A Clear View:** Navigate better thanks to the bright LCD and an image frequency that keeps up with the action.
- **Ultra-Sharp Thermals:** Extra image detail for easier visual orientation with FLIR MSX® or FSX® enhancement.
- **Early Warning:** Truck- and ladder-mounted cameras allow you to detect fire intensity from a safe distance.
- **Better View, Better Planning:** Visualizing an overview of the entire scene from a drone-mounted TIC will help you better coordinate resources.
- **Rugged Reliability:** FLIR designed its line of TICs to withstand the toughest firefighting conditions — whether it's a two-meter drop, heavy water spray, or blazing-hot temperatures.

FULL FORCE

— Thermal Coverage From The Ground Up —





K65
FLIR
K2
33 °C
K1
253 °C
K53
424 °F

K-SERIES

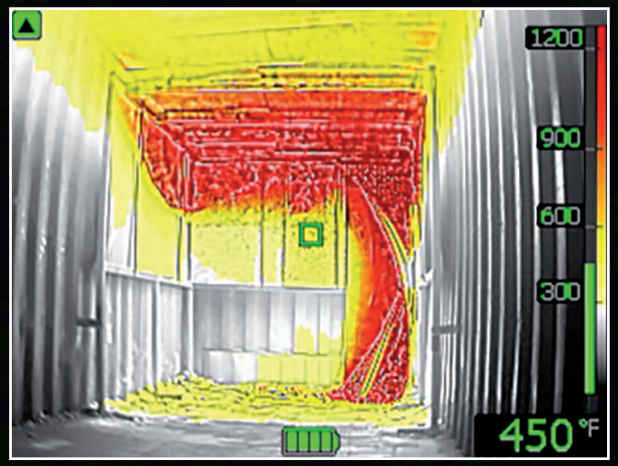
AFFORDABLE, DEPENDABLE, ESSENTIAL

Just like your air pack, radio, and protective gear, FLIR TICs are essential tools for firefighting. With a TIC in hand, you can attack fires more strategically, maneuver through smoke more easily, and save lives. And with a range of technologies and prices from the FLIR K1 Situational Awareness Camera through the NFPA®-compliant FLIR K65, it's easier than ever for departments to afford to issue a TIC to every firefighter.

FSX® - FLEXIBLE SCENE ENHANCEMENT*

Digital image processing enhances the thermal image in the camera, producing an ultra-sharp view with more scene detail. FSX makes it easier for firefighters to find their way in smoke-filled rooms, even in scenes with extreme temperature dynamics.

WITH FSX



WITHOUT FSX

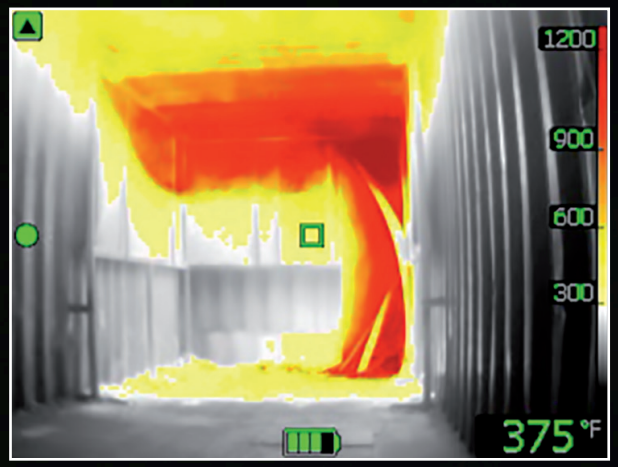
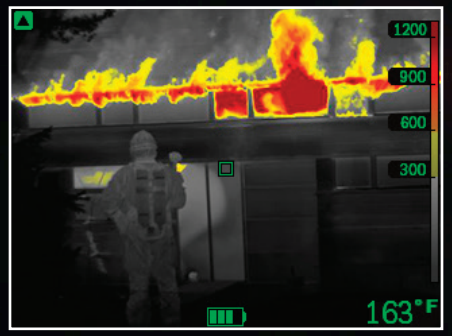


IMAGE MODES

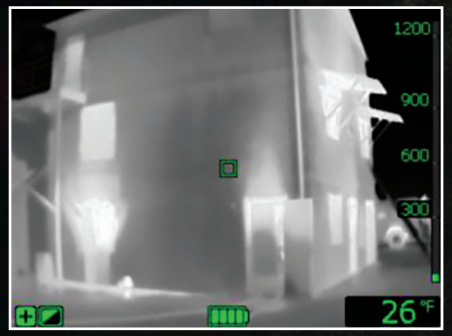
TI BASIC

For initial fire attack and rescue operations; colors represent temperature.



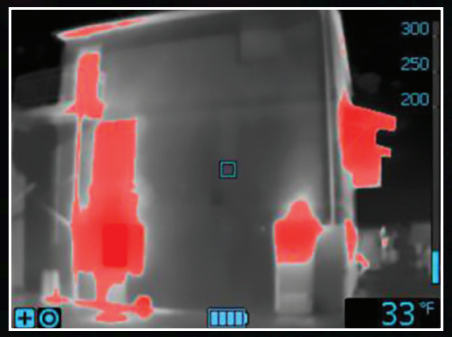
BLACK & WHITE

Same representations of temperature as the TI Basic mode, but in grayscale.



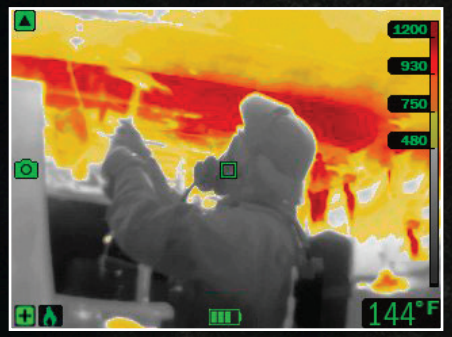
HEAT DETECTION

Used for finding hotspots. The hottest 20% of the scene is colored red.



FIRE

For scenes with higher background temps where open flames are present, particularly in structural fires.



SEARCH & RESCUE

For use with lower temperature situations, such as initial rescue efforts after traffic accidents, searches in wooded areas, etc.

COLD DETECTION*

Colorizes coldest 20% of the scene to aid in finding drafts and determining air flows.

* K2 only

ADVANCED TECHNOLOGY WITHOUT COMPROMISE

The FLIR Kx5-Series with FSX® displays detail-rich imagery on a large, bright 4-inch LCD to help you navigate the smokiest environments, instantly distinguish people and room features, and make critical decisions.

FULL PROTECTION:
FLIR'S 2-5-10 Warranty
- 2 Years Battery
- 5 Years Parts and Labor
- 10 Years Detector

FLIR K45
240 × 180 pixel detector

RUGGED AND RELIABLE

The K45 meets the challenges of intense fire scenes with a drop-resistant, water-resistant design made to operate in 500°F heat for up to five minutes. This affordable TIC saves thermal JPEGs you can play back in the camera or download for later review.

FLIR K55
320 × 240 pixel detector

HIGH-PERFORMANCE

The K55 produces uncompromising, detail-rich imagery you can view in real-time, save as JPEGs, or record as video. Choose one of five image modes designed to help you better navigate heavy smoke, find hidden hot spots, or search for potential victims.

FLIR K65
320 × 240 pixel detector

NFPA 1801 COMPLIANT*

With fully-sealed connectors and a secured battery, the K65 is designed to be fully compliant with the NFPA 1801-2018 Standard for Thermal Imagers covering usability, image quality, and durability.

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POWERFUL, AFFORDABLE TICS

These low-cost, easy-to-use TICs offer glove-friendly controls for quick operation, but are also enhanced with premium features that help improve situational awareness and give firefighters a greater sense of confidence and safety.

FLIR K33
240 × 180 pixel detector

FIREPOWER SIMPLIFIED

Start the K33 in TI-Basic mode with just a press of the button, and freeze the image on-screen with a trigger-pull. This affordable handheld produces crisp imagery with FSX enhancement, helping you navigate fire scenes safely.

FLIR K53
320 × 240 pixel detector

PREMIUM FEATURES, LOWER PRICE

The K53 combines simplified, one-button controls with advanced features such as FSX enhancement and smooth, 60 Hz image capture to provide reliable vision at an affordable price.

FLIR Truck Charger
Optional

POWER ON THE GO

FLIR in-truck chargers help ensure your Kxx Series TIC and Spare Battery are always powered up and ready to go.

RELIABLE SITUATIONAL AWARENESS

FLIR K1 compact thermal cameras make 360° assessment possible in complete darkness and through smoke. Quickly detect and document key findings with internal recording of up to 10,000 thermal/visible image sets.

FULL PROTECTION:
FLIR'S 2-10 Warranty
- 2 Years Parts and Labor
- 10 Years Detector

FLIR K1
160 × 120 pixel detector

POCKET-PORTABLE AND RUGGED

The FLIR K1 helps you quickly assess the scene without losing line of sight and then document key findings with internal recording of up to 10,000 thermal/visual image sets. Designed to withstand a two-meter drop onto concrete and water resistant (IP67), the K1 offers up to 5.5 hours of radiometric thermal imaging.

VISION FOR EVERY FIREFIGHTER

FLIR is on a mission to make TICs standard-issue equipment for every firefighter. With modern fires progressing faster than ever, equipping each crew member with a TIC could be the difference between disorientation and life-saving vision.

K2 Mount

FULL PROTECTION:
FLIR'S 2-5-10 Warranty
- 2 Years Battery
- 5 Years Parts and Labor
- 10 Years Detector

FLIR K2
160 × 120 pixel detector

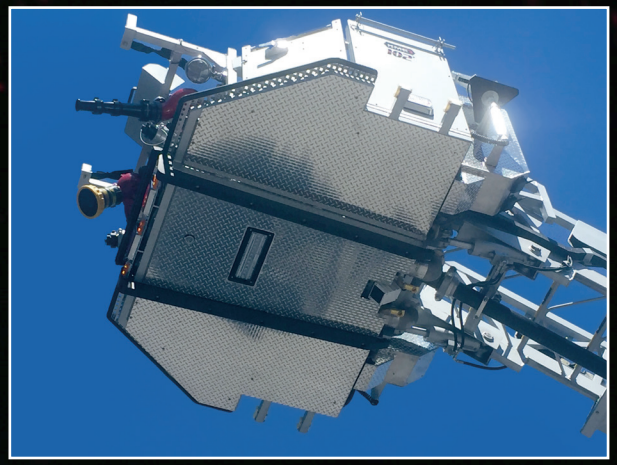
EASY TO HANDLE

The K2 offers a glove-friendly, one-button control for quick access to the simplified interface, so you can focus on the challenging, fast-changing job at hand. Lightweight but rugged, the K2 can withstands a two-meter drop onto concrete, is water resistant (IP67) and is fully operational up to 500°F (three minutes).

GET A STRATEGIC VIEW OF THE SCENE

Steer clear of danger and assess the scene from a new vantage point with the FLIR KF6 – the industry's first thermal imager built specifically for aerial apparatus applications. This specially designed camera feeds thermal video from aerial buckets or ladders for a strategic angle of rooftops, upper stories, and tall structures.

Producing vivid thermal imagery with fine detail, the FLIR KF6 makes it easier to target the hottest areas and identify structures through thick smoke or total darkness – for better situational awareness and tactical firefighting efforts.



AERIAL MOUNT FLEXIBILITY

Securely attaches to aerial platforms or to the end of straight sticks.

OVERHEAD ADVANTAGE

High-angle thermal view provides situational awareness and helps your team plan effective targeting.

FLIR KF6
Mountable Vision

HIGH-RES FOR CRITICAL DETAIL

High-resolution 640 × 480 thermal imagery allows firefighters to evaluate fires from a distance evaluate overall scene safety, help identify where resources are needed, target the seed of the fire for the aerial master stream, liquid level check when hazardous materials are present. Also offers FSX® digital enhancement for easy identification of buildings and locations.

SIMPLE TO VIEW AND CONTROL

View thermal video from inside the truck, at ground level, or atop the aerial platform. The KF6 connects with just one cable to your in-truck LCD or to a monitor positioned outside – or connects over Wi-Fi to wireless-enabled systems.

MOUNTS WITH FOUR BOLTS

Easy to mount and connect to existing systems atop platforms, under platforms, to ladders and elevated waterways.

CDMQ RUGGEDNESS

FLIR built its apparatus-mounted cameras to meet the toughest requirement: the Commercially Developed, Military Qualified (CDMQ) standards.

FULL PROTECTION:
FLIR'S 2-5-10 Warranty*

- 5 Years Parts and Labor
- 10 Years Detector

*KF6 does not have a battery and therefore does not qualify for 2 Years Battery protection

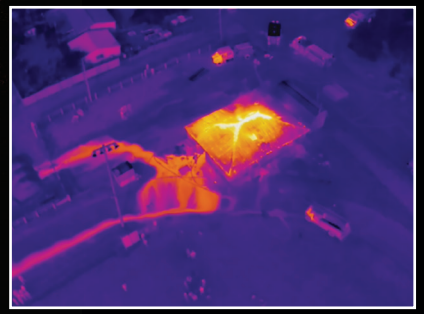
QUICK TO MOUNT, EASY TO FLY

FLIR AERIAL FIRST RESPONDER KITS

FLIR's Aerial Thermal Imaging Kits combine the easy-to-fly M200 / M210 V2 drone from DJI with the Zenmuse XT2 thermal imaging camera. These drone-mounted cameras have the resolution and optics you need to gain a better understanding of a fire scene, assess a hazardous spill, or aid in a search-and-rescue operation. By combining the flight stability and powerful video transmission system of a DJI drone with FLIR thermal technology, these kits provide the ultimate solution for reliable, rapidly-deployable aerial thermal imaging.

UNOBSTRUCTED VIEWS

Scan rooftops and tall buildings from the best vantage point.

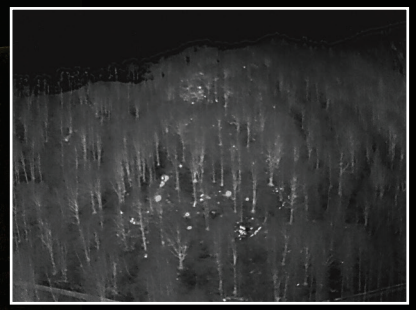


SAFER ASSESSMENTS

View the enite scene safely before making your plan of attack.

WIDE AREA COVERAGE

Reach the unreachable with the M210's extended flight times.



SEARCH & RESCUE

Thermal imaging and visual zoom option help you find missing people faster.

M200 or M210 V2
Multiple Payload Configurations

MISSION-READY

Be ready to launch within minutes! These kits combine the DJI M200 or M210 V2 airframe with the Zenmuse XT2 thermal payload, providing everything needed to mount the camera and fly. The DJI drone comes with the powerful OcuSync 2.0 system for video transmission, camera control, and digital recording.

FLIR MULTI-SPECTRAL DYNAMIC IMAGING (MSX®)

This kit features both a visible and infrared camera with MSX technology. MSX embosses visible image edge details onto thermal images to enhance perspective and safety.

CLEAR, COMPREHENSIVE VIEW

FLIR Aerial Thermal Imaging Kits offer cameras with optimized resolution and wide-angle optics, ensuring you'll have the right combination of situational awareness, magnification, and area coverage to monitor any scene.

VITAL FOR DAY OR NIGHT

The Zenmuse XT2 thermal camera can see through smoke, allowing incident commanders to easily monitor personnel at large scenes or check roof conditions while firefighters are inside. Because it visualizes heat and features a 12 MP visual camera, Zenmuse XT2 is also a must-have for search and rescue operations any time of day.

Specifications

MODEL	K1	K2	K33	K45	K53
IR resolution	160 × 120 pixels	160 × 120 pixels	240 × 180 pixels	240 × 180 pixels	
Thermal sensitivity	<100 mK	<100 mK @ 30°C (86°F)	<40 mK @ 30°C (86°F)	<40 mK @ 30°C (86°F)	
Image or contrast optimization	Digital image enhancement with MSX®	Digital image enhancement with MSX®	Digital image enhancement with FSX®	Digital image enhancement with FSX®	Digital image enhancement with FSX®
Field of view (FOV)	57° × 44°	47° × 35°	51° × 38°	51° × 38°	51° × 38°
Image storage	Yes	No	No	Up to 200 JPEG images on internal flash memory	Up to 200 JPEG images on internal flash memory (co-dependent on the number of saved video clips)
Video storage	No	No	No	No	200 files in total, with a maximum duration of 5 min per video clip
In-camera video recording	No	No	No	No	MPEG-4 to internal flash memory
IMAGE PRESENTATION					
Display	Backlit 2.4 in, 320 × 240 pixel LCD	Backlit 3 in, 320 × 240 pixel LCD	Backlit 4 in, 320 × 240 pixel LCD		
IR image modes	T1 Basic (White hot with isotherm), White hot, Iron	Basic firefighting mode, Cold detection mode, Building analysis mode, Black-and-white firefighting mode, Fire mode, Search and rescue mode, Heat detection mode	TI Basic firefighting mode	TI Basic firefighting mode, Black-and-white firefighting mode, Fire mode, Search and rescue mode, Heat detection mode Thumbnail gallery	TI Basic firefighting mode
Auto range	No	Yes, Non-selectable	Yes, selectable on/off using FLIR Tools		
MEASUREMENT					
Object temperature range	High Gain Mode: -10°C to 140°C (14°F to 284°F) Low Gain Mode: -10°C to 400°C (14°F to 752°F) (at room temperature)	–20°C to 150°C (–4°F to 302°F) 0°C to 500°C (32°F to 932°F)	–20°C to 150°C (-4°F to 302°F) 0°C to 650°C (32°F to		
Accuracy	Accuracy for ambient temperatures of 10°C to 35°C (50°F to 95°F): High Gain Mode: ±5°C or ±5% Low Gain Mode: ±10°C or ±10%	±4°C (±7.2°F) or ±4% of reading for ambient temperature, 10°C to 35°C (50°F to 95°F)			
Spotmeter	Center spot	1 spotmeter	1 spotmeter	1 spotmeter	
SAFETY TESTING					
NFPA 1801:2018 Compliant	No	No	No	No	No
POWER SYSTEM					
Battery type	Li-ion, 3.7 V rechargeable	Li Ion, > 4 hours operating time	Li Ion, > 4 hours operating time		
Charging time	4 hours to 90%, 6 hours to 100%	2.5 h to 90% capacity	2 hours to 85% capacity, status indicated by LE		
ENVIRONMENTAL DATA					
Operating temperature range	10°C to 90°C (14°F to 194°F)— up to 10 min, flashlight on -10°C to 115°C (14°F to 239°F)— up to 2 min, flashlight on	–10°C to 55°C (14°F to 131°F) 85°C (185°F): 15 min 150°C (302°F): 10 min 260°C (500°F): 3 min	–20°C to 85°C (–4°F to 185°F) 150°C (302°F): 15 min 260°C (500°F): 5 min		
Storage temperature range	-30°C to 55°C (-22°F to 131°F)	–40°C to 70°C (–40°F to 158°F)	–40°C to 85°C (-40°F to 185°F)		
Humidity (operating and storage/relative)	0°C to 37°C (32°F to 99°F) 37°C to 45°C (99°F to 113°F) 45°C to 55°C (113°F to 131°F)	IEC 60068-2-30/24 h 95% relative humidity 25°C to 40°C (77°F to 104°F) / 2 cycles 95% relative humidity 25°C to 40°C (77			
Encapsulation, shock, vibration, and drop	IP67 (IEC 60529), 25 g (IEC 60068-2-27), 2 g (IEC 60068-2-6), 2 m (6.6 ft)	IP 67 (IEC 60529), 25 g (IEC 60068-2-27), 2 g (IEC 60068-2-6), 2.0 m / 6.6 ft, on concrete floor (IEC 60068-2-31)	IP 67 (IEC 60529), 25 g (IEC 60068-2-27), 2 g (IEC 60068-2-6), 2.0 m / 6.6 ft, on		
PHYSICAL DATA					
Camera weight, incl. battery	0.410 kg (0.904 lb)	0.7 kg (1.54 lb)	1.1 ±0.05 kg (2.4 ±0.1lb)	1.1 ±0.05 k	
Camera size (L × W × H)	208 × 85 × 65 mm (8.19 × 3.3 × 2.6 in)	250 × 105 × 90 mm (9.8 × 4.1 × 3.5 in)	120 × 125 × 280 mm (4.7 x 4.9 x 11 in)	120 × 125 × 280 m	
PACKAGING					
Contents	K1 infrared camera, printed documentation, wrist strap lanyard, USB-C to USB-A cable, tactical pouch	Infrared camera, battery (×2), battery charger, lanyard strap, power supply, USB cable	Infrared camera, hard transport case, battery (2x), battery charger, power supply, retractable lanyard, carabiner strap, USB		
OPTIONAL ACCESSORIES					
	Hard transport case, carabiner strap, retractable lanyard, extra batteries, in-truck charger, car charger, cigarette lighter adapter kit, tripod adapt				

K55	K65	KF6
320 × 240 pixels		640 × 480 pixels
<30 mK @ 30°C (86°F)		<100 mK @f/1.4
Digital image enhancement with FSX®	Digital image enhancement with FSX®	Digital image enhancement with FSX®
51° × 38°	51° × 38°	69° × 56°
Up to 200 JPEG images on internal flash memory (co-dependent on the number of saved video clips)	Up to 200 JPEG images on internal flash memory (co-dependent on the number of saved video clips)	No
200 files in total, with a maximum duration of 5 min per video clip	200 files in total, with a maximum duration of 5 min per video clip	No
MPEG-4 to internal flash memory	MPEG-4 to internal flash memory	No
		N/A
TI Basic firefighting mode, Black-and-white firefighting mode, Fire mode, Search and rescue mode, Heat detection mode Thumbnail gallery	TI Basic NFPA firefighting mode, Black-and-white firefighting mode, Fire mode, Search and rescue mode, Heat detection mode Thumbnail gallery	TI Basic firefighting mode
		Yes
1,202°F)		High-gain range: -25°C to 135°C (-13°F to 275°F) Low-gain range: 0°C to 550°C (32°F to 1022°F)
		±10°C (±18°F) or ±10% in high gain range
		1
No	Yes	No
Os		
		-32°C to 65°C (-26°F to 149°F)
		-40°C to 70°C (-40°F to 158°F)
°F to 104°F) non-condensing		IEC 600 68-2-30, 24 hours, 95% relative humidity, 25°C to 40°C (77°F to 104°F), two cycles
concrete floor (IEC 60068-2-31)		IP 67 (IEC 605 29), IEC 600 68-2-27, 25 g peak half sine wave, IEC 600 68-2-6, 0.15 mm 10 Hz to 58 Hz and 2 g 58 to 500 Hz sinusoidal
kg (2.4 ±0.1lb)		1.2 ±0.1 kg (2.6 ±0.2 lb)
mm (4.7 x 4.9 x 11 in)		158 × 112 × 89 mm (6.2 × 4.4 × 3.5 in)
cable, printed documentation	Infrared camera, hard transport case, battery (2x), battery charger, power supply, retractable lanyard, USB cable, carabiner strap, Torx screwdriver,printed documentation	K6 infrared camera, printed documentation
er		

FLIR Aerial First Responder Kits

Models	FLIR M200/M210 V2-Series
Aircraft model[1]	DJI M200 V2, DJI M210 V2
Included tablet interface	DJI CrystalSky Display 7.87"
RC unit- 1 included	DJI Cendence RC
Aircraft battery	Qty 2 TB55 (7660 mAh)
Visual camera gimbal	DJI X4S 20 MP, 4K/60 H.264 4K/30 H.265 videos at a 100 Mbps 12 mp visual camera supplies MSX to thermal images
Gimbal mount (IR & visual)	Model dependent, single and/or dual downward
Compatible cameras	Zenmuse XT2 (included) Zenmuse X5S (optional)* Zenmuse X30 (optional)*
Thermal gimbal	Radiometric IR Camera 336 × 256 (M200) or 640 × 512 IR resolution Focal length & FOV: model dependent
Thermal imager	Uncooled VOx Microbolometer
IR sensitivity	<50 mK at f/1.0
Scene range (high gain)	-25°C to 135°C (-13°F to 275°F) [M200 range: -25°C to 100°C]
Scene range (low gain)	-40°C to 550°C (-40°F to 1022°F)
Spot meter	Temperature measured in 4 × 4 pixel spot
File storage	Micro SD Card
Photo/video format	Radiometric JPEG, TIFF, MP4
Compatible software	DroneSense FLIR Edition
Operating temperature range	-10°C to 40°C (14°F to 104°F)
Weight (gimbal)	588 g (20.7 oz)

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