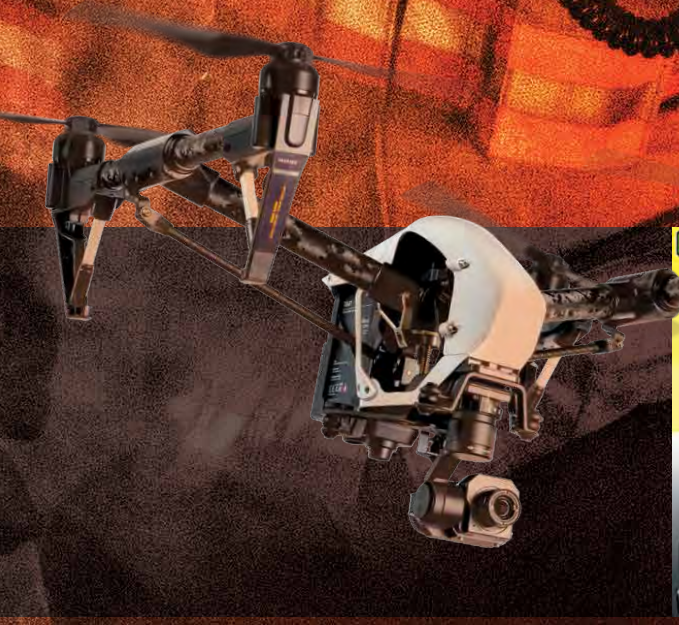
SEE THROUGH SMOKE FROM EVERY ANGLE

FLIR Handheld, Mounted, and Aerial Thermal Imaging Cameras for Firefighting



FLIR® | The World's Sixth Sense®

FLIR THERMAL IMAGING CAMERAS FOR FIREFIGHTING

FULL FORCE COVERAGE FROM THE GROUND UP

FLIR's expanded lineup of TICs gives you the most comprehensive view of the scene – from inside, outside, and above the fire.

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 FLIR's lineup of cost-effective handhelds, feature-rich advanced cameras, and mounted and UAS aerial 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: by viewing the entire scene from multiple viewpoints, incident commanders can make better decisions when directing resources. And, since FLIR TICs clearly visualize heat sources, they're an important tool for hazmat and search and rescue operations.

IMAGE MODES

TI BASIC

For initial fire attack and life rescuing operations.

WITHOUT FSX™

WITH A FLIR TIC, YOU GET :

A Clear View Inside

All of that plastic in our homes and buildings generates billows of black smoke as it burns, making it too easy for firefighters to lose their way, or each other. FLIR's handheld TICs help clear the way and can even enhance the view with ultra-sharp detail for easier orientation.

Rugged, Reliable Tools

Fire scenes aren't pretty, they aren't safe, and they aren't easy on equipment. 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.

BLACK & WHITE FIREFIGHTING

Same as the TI Basic mode but a grey scale image.

FIRE

For use in context with higher background temperatures where a lot of open flames are present, particularly in structural fires.

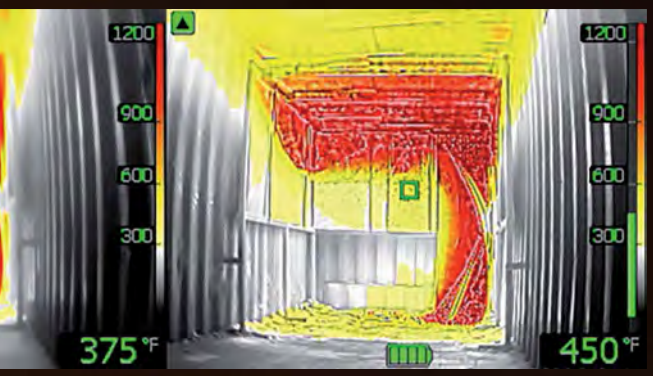
SEARCH & RESCUE

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

HEAT DETECTION

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

WITH FSX™



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.

*KF6 and all K-Series models except K2

An Early Warning

Whether there's a surge of high heat or the potential for hazardous materials, it helps to know what you're dealing with. Truck- and ladder-mounted cameras allow you to detect fire intensity from a safe distance, spot temperature differences that point to hazardous agents, and even check liquid levels in tanker trucks.

A New Vantage Point

The view of the fire on the ground is only half of the story. A FLIR TIC mounted on a small drone provides a view of rooftops, upper stories, and tall structures. Drone-mounted cameras are also vital to search and rescue efforts.

FLIR K-SERIES

AFFORDABLE, DEPENDABLE, ESSENTIAL

Just like your air pack, radio, and protective gear, a FLIR thermal imaging camera (TIC) is an essential tool 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 introductory K2 model through the NFPA-compliant FLIR K65, it's easier than ever for departments to afford to issue a TIC to every firefighter.

K2

K33/53

FLIR K-SERIES FEATURES

Enhanced for Crisper Detail

FLIR K-Series TICs display enhanced thermal images on a bright LCD, helping you navigate better and expedite critical decisions. Whether you're working with an advanced 320 x 240 pixel model or an affordable 240 x 180 pixel TIC, the uncooled IR sensor provides crisp, detail-rich imagery at a 60 Hz frame rate that keeps up with the action.

Uncompromisingly Tough

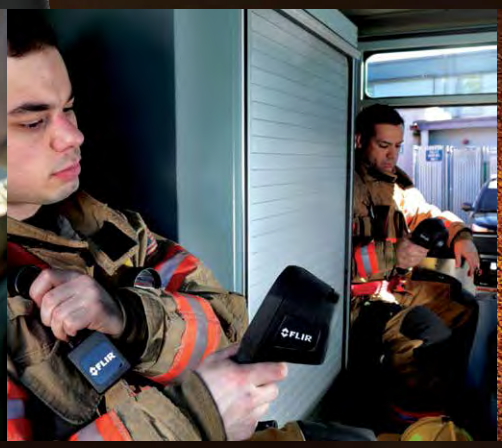
FLIR designed its K-Series TICs to withstand the toughest firefighting conditions – from two-meter drops onto concrete to blasts from the hose. They remain fully operational in 500°F heat for up to 5 minutes. What's more, the K65 complies fully with the NFPA® 1801-2013 standard for firefighting thermal imaging cameras.

Easy to Handle

The large buttons on K-Series TICs provide quick access to the simplified user interface, so you can stay focused on the challenging and fast-changing job at hand.

K45/55

K65



Ready for Recaps and Reports

Save up to 200 thermal images (K45) or record up to 200 5-minute thermal video clips (K53, K55, K65) to replay on the camera LCD (K55, K65) or export for future reference. These options are ideal for on-site review and for creating recap reports once the fire is out.

Affordably Priced

FLIR develops and manufactures more thermal imaging cameras than any other company. This integrated capability allows us to offer the K-Series at an extremely affordable price to help you stretch your department's budget.

Full Protection for Your TIC:

FLIR'S 2-5-10 Warranty

- 2 Years Battery
- 5 Years Full Product/Parts and Labor
- 10 Years Detector

FLIR K-SERIES

AFFORDABLE, DEPENDABLE, ESSENTIAL

FLIR K2

Put A TIC in Every Firefighter's Hand

The K2 offers extreme affordability without sacrificing quality, capability, or reliability. This TIC is light and easy to attach to turnouts, but it's engineered just as tough as its K-Series big brothers. Plus, the K2 uses FLIR's patented MSX® technology to emboss key visual details onto thermal images, helping you stay oriented to your surroundings while saving others.

FLIR K65

NFPA® Compliant

The K65 is the advanced, feature-rich thermal imaging camera you need when NFPA compliance is a must. With fully sealed connectors and a secured battery, the K65 is designed to be fully compliant with the NFPA 1801-2013 Standard for Thermal Imagers covering usability, image quality, and durability for firefighting.

Certified according to NFPA 1801-2013 specifications for:

- Vibration
- Impact acceleration resistance
- Corrosion
- Viewing surface abrasion
- Heat resistance
- Heat and flame
- Product label durability

OPTIONAL ACCESSORIES

- Extra battery
- Battery charger
- Hard case
- Retractable lanyard
- Strap lanyard
- Neck strap
- USB cable
- Tripod adapter
- In-truck charger

FLIR K-Series Handheld TICs Specifications

Model	K2	K33	K45	K53	K55	K65
Imaging and optical data						
IR resolution	160 x 120 pixels	240 x 180 pixels	240 x 180 pixels	320 × 240 pixels		
Thermal sensitivity	< 100 mK @ 30°C (86°F)	< 40 mK @ 30°C (86°F)	< 40 mK @ 30°C (86°F)	< 30 mK @ 30°C (86°F)		
Image or contrast optimization	Digital image enhancement with MSX®	Digital image enhancement with FSX™				
Field of view (FOV)	47° × 35°	51° × 38°				
Image storage	No	No	Up to 200 JPEG images on internal flash memory (co-dependent on the number of saved video clips)			
Video storage	No	No	No	200 files in total, with a maximum duration of 5 min per video clip		
In-camera video recording format	No	No	No	MPEG-4 to internal flash memory		
Image presentation						
Display	Backlit 3 in, 320 x 240 pixel LCD	Backlit 4 in, 320 x 240 pixel LCD				
Image modes	IR Image: Basic firefighting mode, Cold detection mode, Building analysis mode, Black-and-white firefighting mode, Fire mode, Search and rescue mode, Heat detection mode	IR Image: TI Basic firefighting mode	IR Image: TI Basic firefighting mode, Black-and-white firefighting mode, Fire mode, Search and rescue mode, Heat detection mode Thumbnail gallery	IR Image: TI Basic firefighting mode	IR Image: TI Basic firefighting mode, Black-and-white firefighting mode, Fire mode, Search and rescue mode, Heat detection mode Thumbnail gallery	IR Image: TI Basic NFPA firefighting mode, Black-and-white firefighting mode, Fire mode, Search and rescue mode, Heat detection mode Thumbnail gallery
Auto range	Yes, selectable on/off using FLIR Tools					
Measurement						
Object temperature range	–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 1,202°F)				
Accuracy	±4°C (±7.2°F)or ±4% of reading for ambient temperature, 10°C to 35°C (50°F to 95°F)					
Spotmeter	1 spotmeter					
Certifications						
NFPA 1801-2013 Certification						Yes
Power system						
Battery type	Li Ion, > 4 hours operating time					
Charging time	2.5 h to 90% capacity	2 hours to 85% capacity, status indicated by LEDs				
Environmental data						
Operating temperature range	–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	–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)	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°F to 104°F) non-condensing					
Encapsulation, shock, vibration, and drop	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)					
Physical data						
Camera weight, incl. battery	0.7 kg (1.54 lb)	1.1 ±0.05 kg (2.4 ±0.1lb)				
Camera size (L × W × H)	250 x 105 x 90 mm (9.8 x 4.1 x 3.5 in)	120 × 125 × 280 mm (4.7 x 4.9 x 11 in)				
Packaging						
Packaging, contents	Infrared camera, Battery (×2), Battery charger, Lanyard strap, Power supply, USB cable	Infrared camera, Battery (×2), Battery charger, Hard transport case, Lanyard strap, Neck strap, Retractable lanyard, Power supply, USB cable	Infrared camera, Battery (×2), Battery charger, Hard transport case, Lanyard strap, Neck strap, Retractable lanyard, Power supply, USB cable	Infrared camera, Battery (×2), Battery charger, Hard transport case, Lanyard strap, Neck strap, Retractable lanyard, Power supply, USB cable	Infrared camera, Battery (×2),Battery charger, Hard transport case, Lanyard strap, Neck strap, Retractable lanyard, Power supply, USB cable	Infrared camera, Battery (2 ea.), Battery charger, Hard transport case, Power supply, USB cable, Torx screwdriver (T20)

FLIR KF6 AND THE FLIR M-SERIES

GET A STRATEGIC VIEW OF THE SCENE

Steer clear of danger and assess the scene from a new vantage point with FLIR's truck-mounted Thermal Imaging Cameras. M-Series cameras offer high-resolution IR sensors and E-zoom features, allowing you to monitor for intense heat or hazardous materials while still on the approach. Once there, FLIR's specially designed KF6 cameras can feed thermal video from aerial buckets or ladders, for a strategic angle of rooftops, upper stories, and tall structures.

FLIR KF6 AND M-SERIES FEATURES

High Resolution for Critical Detail

The KF6 and M-Series' high resolution 640 x 480 thermal imagery allows firefighters to evaluate fires from a safe distance, check liquid levels in tanker trucks, scan crash scenes for skid marks, and spot victims ejected from vehicles. The KF6 also offers FSX® digital enhancement for easy identification of buildings and locations.

Simple to View and Control

View thermal video and control your TIC 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 WiFi to wireless-enabled systems. FLIR's M-Series comes with a joystick for zoom, tilt, and pan control from your in-truck LCD display system.

Tough in Any Conditions

FLIR knew these cameras would be front-and-center at all times, so it designed the KF6 and M-Series TICs to withstand the high heat, harsh conditions, and powerful water sprays at fire scenes. The KF6 and M-Series' rugged housings meet military environmental stress standards, and passed extensive IEC performance and water ingress testing.

EASY TO INSTALL

First responders don't have time to fiddle with electronics. The KF6 and M-Series cameras are easy to mount and connect to existing systems.




Once attached to the vehicle cab roof, the M-Series cameras integrate seamlessly with existing electronics and displays.

The KF6 mounts quickly and easily with four bolts.

Attach the KF6:

- Atop platforms
- Under platforms
- To ladders
- On vehicle roofs

CDMQ Ruggedness

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

KF6 Certifications:

- MIL-STD-810G
- IP67
- IEC 600 68-2-27
- IEC 600 68-2-6

M-Series Certifications:

- MIL-STD-810E
- IPx6
- IEC 60945

Full Protection for Your KF6:

- 5 Years Full Product/Parts and Labor
- 10 Years Detector

YEAR 5 FULL PRODUCT WARRANTY*

YEAR 10 DETECTOR WARRANTY*

FLIR KF6 Specifications

Model	KF6
Imaging and optical data	
IR resolution	640 x 480
Thermal sensitivity	< 100 mK @ f/1.4
Contrast optimization	Digital image enhancement with FSX™
Field of view (FOV)	69° × 56°
Image presentation	
Image mode	TI Basic firefighting mode
Auto range	Yes
Measurement	
Object temperature range	High-gain range: –25°C to 150°C (–13°F to 302°F) Low-gain range: 0°C to 550°C (32°F to 1022°F)
Accuracy	±10°C (±18°F) or ±10% in high gain range
Spotmeter	1
Video	
Video out	Composite video output, NTSC compatible
Power system	
Power input	10.5 – 32 VDC (ISO 7637-2)
Start-up time	< 25 sec.
Power consumption	< 5 W average when supplied with 28 VDC
Environmental data	
Operating temperature range	-32°C to 65°C (-26°F to 149°F)
Storage temperature range	-40°C to 70°C (-40°F to 158°F)
Humidity (operating and storage)	IEC 600 68-2-30, 24 hours, 95% relative humidity, 25°C–40°C (77°F–104°F) , two cycles
Encapsulation, shock, vibration	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
Physical data and packaging	
Camera weight	1.2 ± 0.1 kg (2.6 ± 0.2 lb)
Camera size (L x W x H)	158 mm × 112 mm × 89 mm (6.2 in × 4.4 in × 3.5 in)
Packaging, contents	Infrared camera, printed documentation

FLIR M-Series Specifications

Model	M324XP	M625XP	M625L
Imaging and optical data			
IR resolution	320 x 240	640 x 480	
Field of view (FOV)	24° x 18°	25° x 20°	
Focal length	19 mm	25 mm	
E-Zoom	2x	2x, 4x	
Detector type	VOx, Uncooled microbolometer		
Image processing	FLIR DDE		
Black & white lowlight camera	No	768 x 494 with FOV matching IR	
Measurement			
Range performance	Person: 1,500 ft (457 m) Small vehicle: 4,200 ft (1280 m)	Person: 2,700 ft (823 m) Small vehicle: 1.38 mi (2.2 km)	Person: 2,700 ft (823 m) Small vehicle: 1.38 mi (2.2 km)
Environmental data			
Operating temperature range	-25°C to 55°C (-13°F to 131°F)		
Storage temperature range	-40°C to 85°C (-40°F to 185°F)		
Automatic window defrost	Standard		
Packaging			
Packaging, contents	Camera head, 18-inch pigtails for power, Analog video & Ethernet, Joystick control unit, Operator manual		

FLIR AERIAL THERMAL IMAGING KITS

QUICK TO MOUNT, EASY TO FLY

FLIR's Aerial Thermal Imaging kits combine the easy-to-fly Inspire 1 drone from DJI with the Zenmuse XT 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, rapid-deployable aerial thermal imaging.

FLIR AERIAL THERMAL IMAGING KITS FEATURES

Clear, Comprehensive View

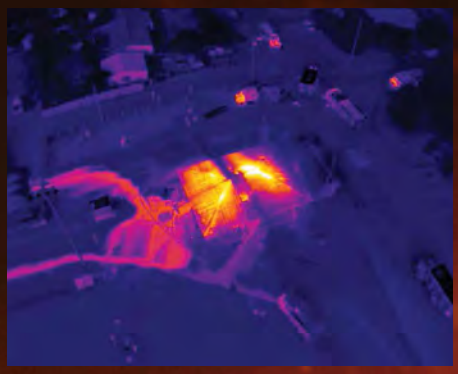
FLIR's Aerial Thermal Imaging Kits offer cameras with optimized resolution and wide-angle optics, ensuring you'll have the right combination of situational awareness, magnification, and area coverage needed to monitor any scene.

Mission-Ready

This kit provides everything needed to mount the camera and be ready to launch in minutes. This DJI drone comes with the powerful Lightbridge system for video transmission, camera control, and digital recording.

Vital for Day or Night

FLIR's Zenmuse XT thermal camera has the ability to see through smoke, so incident commanders can keep track of personnel at large scenes or monitor roof conditions while firefighters are inside. Because it visualizes heat, this thermal imager is also a must-have for search and rescue operations at any time of day.



DJI ZENMUSE XT INSPIRE 1

Fast and efficient, with stable airframes, the Inspire 1 will keep the Zenmuse XT aloft for 22 min*, making it ideal for large scale inspections and surveys of active fire scenes. It can also be a critical tool for search and rescue scenarios.

* Flight times vary based on flight conditions, with a maximum 22-minute flight time being recorded when hovering with a TB48 battery using the Zenmuse XT gimbal camera.

FLIR Aerial First Responder Kits

Model	Basic Kit	Advanced Kit
Camera and aircraft data		
Thermal camera	DJI Zenmuse XT thermal camera & stabilized gimbal	
Optics	6.8 mm (45° x 35°)	13 mm (45° x 37°)
Ir resolution	336 x 256	640 x 512
Aircraft	DJI Inspire 1 (V 2.0)	
Controllers	1	2
Batteries included	3	3
Color video camera	DJI Zenmuse X3 4k video camera & stabilized gimbal	
Display, Connectivity & Control		
FLIR Tools+ image analysis software	Yes	
Apple iPad Mini 4 (64GB, WiFi)	1	2
Monitor hood(s)	1	2
Rugged carrying case	Yes	
FLIR landing pad	Yes	

Full Protection for Your Aerial Thermal Imaging Kit:

- DJI Inspire Airframe Gimbal Camera: 1 year
- Battery: 6 months and <200 charge cycles
- Whole Unit*: 1 year and <200 flight hrs.
- Battery Charging Hub: 6 months
- Remote Control: 1 year
- Zenmuse Gimbals: 1 year
- Gimbal Motors: 6 months

*Except for gimbal camera and battery