THERMAL FIREFIGHTING

Full Force Coverage from the Ground Up

Handheld - Aerial - Fixed Mounted
FLIR THERMAL IMAGING CAMERAS FOR FIREFIGHTING

FLIR’s expanded lineup of thermal imaging cameras (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 and mounted and UAV aerial options, fire departments can now afford to equip 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 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.

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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 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.

**K-SERIES**

**AFFORDABLE, DEPENDABLE, ESSENTIAL**

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.

*Available in K-Series models except K2

**IMAGE MODES**

**TI BASIC**

- For initial fire attack and rescue operations
- Colors represent temperature

**BLACK & WHITE**

- For use in scenes where HSX makes finding targets more difficult
- Colors represent temperature

**FIRE**

- For use in scenes where HSX makes finding targets more difficult
- Colors represent temperature

**SEARCH & RESCUE**

- For use in scenes where HSX makes finding targets more difficult
- Colors represent temperature

**HEAT DETECTION**

- The hottest 20% of the scene is colored red

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

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

Used for finding hotspots. The hottest 20% of the scene is colored red.
The FLIR Kx5 Series with FSX offers detail-rich imagery displayed on a large, bright 4 in. LCD, so you can navigate the smokeiest environments, instantly distinguish people, room features and make critical decisions.

**FLIR K45, K55, K65**

**HIGH-PERFORMANCE TICS**

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**Review and Recap**

Save thermal images for on-site review or recap reporting once the fire is out. The K45 is FLIR’s most affordable model to record JPEGs, while the K55 and K65 also record video to internal flash memory.

**Uncompromisingly Tough**

FLIR designed the 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.

**FLIR K45**

- 240 × 180 pixel detector

**FLIR K55**

- 320 × 240 pixel detector

**FLIR K65**

- 320 × 240 pixel detector

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**NFPA 1801 Compliant**

* NFPA 1801 compliant indicates that the device is designed to be fully compliant with the NFPA 1801 Standard for Thermal Imaging Systems, meaning it meets the published guidelines in terms of safety, image quality, accuracy, and more for firefighting.

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FLIR K2, K33, K53

POWERFUL, AFFORDABLE TICS

FLIR is on a mission to make powerful TICs standard-issue equipment for every firefighter. Along with providing your team with feature-packed FLIR TICs, make sure each crew member has a FLIR K2 in hand so everyone will have the essentials for working faster and safer.

**FULL PROTECTION:** FLIR’s 2-5-10 Warranty
- 2 Years Battery
- 5 Years Full Product
- 5 Years Parts and Labor
- 10 Years Detector

**Life on the Job:**

- **FLIR K2:**
  - 160 x 120 pixel detector
  - LCD display
- **FLIR K33:**
  - 240 x 180 pixel detector
  - LCD display
- **FLIR K53:**
  - 320 x 240 pixel detector
  - LCD display

**Customers are People:**

- **FLIR K2:**
  - Truck Charger
  - K2 Mount

**FLIR K-Series Handheld TIC Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>IR resolution</th>
<th>Thermal sensitivity</th>
<th>Image or contrast optimization</th>
<th>Field of view (FOV)</th>
<th>Image storage</th>
<th>Video storage</th>
<th>In-camera video recording</th>
<th>Image presentation</th>
<th>Auto range</th>
<th>Measurement</th>
<th>Spotmeter</th>
<th>Safety testing</th>
<th>Power system</th>
<th>Environmental data</th>
<th>Physical data</th>
<th>Optional Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>K2</td>
<td>160 x 120</td>
<td>&lt;100 mK @ 30°C</td>
<td>Digital image enhancement with MSX®</td>
<td>47° × 35°</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Backlit 3 in, 320 x 240 pixel LCD</td>
<td>Yes, Non-selectable</td>
<td>–20°C to 150°C (–4°F to 302°F)</td>
<td>±4°C (±7.2°F) or ±4% of reading for ambient temperature, 10°C to 35°C (50°F to 95°F)</td>
<td>1 spotmeter</td>
<td>NFPA 1801:2013 Compliant</td>
<td>Battery type Li Ion, &gt; 4 hours operating time</td>
<td>Operating temperature range –10°C to 55°C (14°F to 131°F)</td>
<td>Infrared camera, Battery (×2), Battery charger, Lanyard strap, Power supply, USB cable</td>
</tr>
<tr>
<td>K33</td>
<td>240 x 180</td>
<td>&lt;40 mK @ 30°C</td>
<td>Digital image enhancement with FSX™</td>
<td>51° × 38°</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Backlit 4 in, 320 x 240 pixel LCD</td>
<td>Yes, selectable on/off using FLIR Tools</td>
<td>–20°C to 150°C (-4°F to 302°F)</td>
<td>±4°C (±7.2°F) or ±4% of reading for ambient temperature, 10°C to 35°C (50°F to 95°F)</td>
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<tr>
<td>K53</td>
<td>320 x 240</td>
<td>&lt;30 mK @ 30°C</td>
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Ceiling collapsing, carpet melting, and the scene deteriorating around them — two firefighters battled their way through a burning house, searching for a woman trapped somewhere on the second floor. With grit and the help of their FLIR K2 thermal imaging camera, they fished her out by then, the woman had trapped all three in a bedroom — the closed door, already engulfed in flames. The firefighters tossed the K2 to free their hands for an escape, leaving it to burn with the structure.

And yet… not only did the woman and the crew survive, so did the K2. Read this remarkable story to learn how the crew — and the K2 — escaped harm.

Visit www.flir.com/survival to read more of the story...
FLIR AERIAL FIRST RESPONDER KITS
QUICK TO MOUNT, EASY TO FLY

FLIR’s Aerial Thermal Imaging Kits combine the easy-to-fly M210 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, rapidly-deployable aerial thermal imaging.

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.

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 to monitor any scene.

Vital for Day or Night
FLIR’s Zenmuse XT thermal camera can see through smoke, allowing incident commanders to easily monitor personnel and air在北京иям situations and see up to 100 m (328 ft) away in zero visibility. Normally available at night, Zenmuse XT also becomes a valuable tool in a rescue operation—any time of day.

Scan rooftops and tall buildings from the best vantage point.
View the entire scene safely before making your plan of attack.
Reach the unreachable with the M210’s extended flight times.
Thermal imaging and visual zoom option help you find missing people faster.
**FLIR KF6 Specifications**

- **Model**: KF6
- **Thermal sensitivity**: <100 mK @ f/1.4
- **Image resolution**: 640 × 480
- **Image presentation**: Digital image enhancement with FSX®
- **Field of view (FOV)**: 69° × 56°
- **Image mode**: TI Basic firefighting mode
- **Auto range**: Yes
- **Object temperature range**:
  - 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)
- **Accuracy**: ±10°C (±18°F) or ±10% in high gain range
- **Spotmeter**: 1 spotmeter
- **Video**: Composite video output, NTSC- and PAL-compatible models
- **Power input**: 10.5 – 32 VDC (ISO 7637-2)
- **Start-up time**: <25 sec.
- **Power consumption**: <5 W average when supplied with 28 VDC
- **Certifications**: MIL-STD-810G, IP67, IEC 60068-2-27, IEC 60068-2-6
- **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/relative) IEC 60068-2-30, 24 hours, 95% relative humidity, 25°C–40°C (77°F–104°F), two cycles
- **Encapsulation, shock, vibration, and drop**: IP 67 (IEC 60529)
- **Physical data**:
  - Camera weight: 1.2 ±0.1 kg (2.6 ±0.2 lb)
  - Camera size (L × W × H): 158 mm × 112 mm × 89 mm (6.2 in × 4.4 in × 3.5 in)

**FLIR KF6 GET A STRATEGIC VIEW OF THE SCENE**

Steer clear of danger and assess the scene from a new vantage point with the FLIR KF6. This specially designed camera can feed thermal video from aerial buckets or ladders, for a strategic angle of rooftops, upper stories, and tall structures.

**High Resolutions for Critical Detail**

The FLIR high-resolution camera helps first responders examine the scene from front line vantage points. Clear thermal images make it easy to see details that are not visible otherwise. First responders can make better decisions for firefighting operations, rescues, and other critical events.

**Measures easily with four bolts**

First responders don’t have time to fiddle with electronics. The KF6 cameras are easy to mount and connect to existing systems atop platforms, under platforms, to ladders and on vehicle roofs.

**CDMQ Ruggedness**

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

**FULL PROTECTION**

FLIR’S 5-10 Warranty

- **5 Year Full Product/Parts & Labor**
- **10 Years Detector**

**BATTERY WARRANTY**

- **5 Year Full Product/Parts & Labor**

**AERIAL MOUNT FLEXIBILITY OVERHEAD ADVANTAGE**

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

High resolution 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.