

COMPETITOR COMPARISON



Mi-TIC E™

H x W x D
203 mm x 96 mm x 71 mm
(8 in x 3 3/4 in x 2 13/16 in)

versus



FLIR® K45

H x W x D
280 mm x 125 mm x 120 mm
(11 in x 4 15/16 in x 4 3/4 in)

Mi-TIC E	K45	Competitive Advantage
Weight 765g (1.7 lbs).	1.1kg (2.4 lbs).	The Mi-TIC E is 375g (0.8 lbs) lighter than the K45 making all the difference for easy one handed use in the fire scene.
Non-Uniformity Correction (NUC) time Ensures no detail is lost at any time. Less than 1 second.	Up to 10 seconds.	Every TIC periodically performs a recalibration routine during which the image will momentarily “freeze up”. The Mi-TIC E takes less than 1 second to perform this recalibration. The FLIR K65 can completely freeze up for several seconds at a time. Competitive advantage: it is important that the TIC “down time” is kept to a minimum, especially when performing overhaul operations where the scene is scanned for hot spots. If the TIC image is frozen, the user will waste valuable seconds repeating the scan operation once the recalibration is complete or worse still, completely miss the presence of a hot spot which could lead to reignition of the fire.
Image noise and sensitivity mode switching Ensures no detail is lost at any time.	The FLIR camera can take 3-4 seconds to switch sensitivity modes	While the FLIR camera is switching sensitivity modes very little detail can be seen with the camera because the camera is essentially over or under exposing the scene. 3-4 seconds is a long time to wait for important scene details to be revealed.
Battery recharge cycles Guaranteed for over 2,000 cycles.	300 cycles.	A Flir K45 user would potentially have to purchase four new batteries over the lifetime of one single Mi-TIC E battery creating an increased cost of ownership over the life of the camera.
Truck Mount charger The Mi-TIC E has a multipurpose camera charger which can be used either as a truck or desktop charger. There is an option to charge up to six charger stations in a “daisychain” configuration. The battery can also be charged connected to the camera.	External standard battery charger supplied. Truck charger is sold as an optional accessory.	Flir charge an extra £500 for a truck charger which comes as standard with the Mi-TIC E.

Recommend the Mi-TIC E to your customers for trial and evaluation.

The **argus®** range of thermal imaging cameras

AVON
PROTECTION

Mi-TIC E	K45	Competitive Advantage
<p>Contrast Optimisation Dynamic Scene Enhancement (DSE)</p>	Flexible Scene Enhancement (FSX).	Flir advertise FSX as one of their new competitive advantages however the Mi-TIC E offers exactly the same "DSE" which provides an ultra sharp image with greater detail.
<p>Temperature Range The Mi-TIC E has a temperature limit of 760°C (1400°F).</p>	The K45 has a temperature limit of 650°C (1202°F).	<p>The Mi-TIC E has been designed to provide fire fighters with excellent detail in day to day fire scenarios.</p> <p>The argus range of thermal imaging cameras have been able to offer a greater temperature range meaning it is possible to view more intense fires.</p>
<p>Buttons The Mi-TIC E is available in either a one or three button variant.</p> <p>One button:</p> <ul style="list-style-type: none"> • Black box recording <p>Three buttons:</p> <ul style="list-style-type: none"> • Image freeze • Image and video capture • Video playback • Zoom • Multiple colour modes 	<p>Three button variant:</p> <ul style="list-style-type: none"> • Image freeze • Image capture • Zoom • Multiple colour modes 	<p>The argus range of thermal imaging cameras have one and three button variants to give the customer a greater choice depending on their application. Some fire brigades may wish to have a very simple camera which switches on/off whilst another brigade will see the benefit for extra colour modes or the capability to zoom and take images.</p> <p>With the configuration tool the user can determine how much or little they use.</p>
<p>Battery Technology Lithium Iron Phosphate batteries are certified for use at temperatures over 85°C (185°F), commonly experienced by fire fighters. Unlike Li-ion there is no risk of rapid thermal runaway that could cause a dangerous explosion.</p>	Lithium Ion (Li-ion) batteries are not certified for use above 60°C (140°F). When an ordinary Li-ion battery is exposed to high temperature, or a severe mechanical shock there is a high risk of rapid thermal runaway (explosion) not present in Lithium Iron Phosphate.	Mi-TIC E uses a safer battery technology than the K45 Series with a lower risk of explosion. Search 'lithium ion battery explosion' on You-Tube for examples of rapid thermal runaway. Read the Flir K series user manual to discover the numerous cautions listed against their battery, for example "Do not put the batteries in or near a fire or into direct sunlight..."
<p>Battery Operating time In excess of 3 hours.</p> <p>Two batteries can charge at the same time with a recharge time of less than 3 hours.</p>	4 hours.	This may seem like an advantage to Flir however it is important to consider the battery technology as previously stated.
<p>Operating Temperatures The camera has been designed to operate continuously at +85°C.</p>	The datasheet states that the camera has been designed to operate continuously at +85°C (185°F) BUT open the camera and read the battery label!	The battery label of the K45 states "Do not incinerate or expose to high temperatures above 60°C (140°F)".
<p>Start up time 5 seconds typical, no sleep mode required.</p>	<17 second start up time. Sleep mode required.	<p>To get round the long start up time the K45 offer a sleep mode, but they haven't taken into account that using this will slowly drain the battery. They have an automatic shutdown, but this is not ideal because you will either be draining your battery or facing a <17 second start up time.</p> <p>Will a fire fighter remember to turn on the camera before he arrives at the scene to avoid a dangerous wait? We think that is unlikely!</p>

Mi-TIC E	K45	Competitive Advantage
<p>Sensor Resolution 320 x 240 pixels.</p>	<p>240 x 180 pixels.</p>	<p>The Mi-TIC E offers a better image quality providing a clearer and more detailed image. The argus range of thermal imaging cameras are known for leading image quality, this is certainly very clear when comparing the Mi-TIC E to the Flir K45.</p>
<p>NFPA Certification Certified to NFPA 1801.</p>	<p>Not certified. The datasheet states "Designed to meet NFPA 1801 specification" BUT this does not mean certified.</p>	<p>The Flir K45 is NOT NFPA certified. The list of NFPA certified cameras can be found on the SEI website www.seinet.org.</p>
<p>Warranty Avon Protection offers a standard 3-5-10 warranty. 3 years cover for the camera. 5 years cover for the battery 10 years cover for the sensor and lens.</p>	<p>Flir offer a 2-5-10 limited warranty. 2 years cover for the battery. 5 years cover for the camera. 10 years cover for the sensor.</p>	<p>Flir offer a 10 year warranty on the uncooled sensor but the chances of the sensor going wrong within that timeframe is highly unlikely due to the high quality of the sensors now used.</p>
<p>Screen size 2.7 inches.</p> <p>Resolution of the screen is matched to the sensor 320 x 240 producing a clear sharp image.</p>	<p>4 inches.</p>	<p>Flir can offer a larger screen on the K45 however this does have an impact on the size and weight of the camera. The Mi-TIC E is the smallest, lightest NFPA camera on the market. If the fire brigade prefer the larger screen then Avon Protection can offer the Mi-TIC S with a 3.5 inch screen at a very competitive price.</p>
<p>Germanium Window Replaceable in the field.</p>	<p>There is no protective germanium window so the lens is exposed. The concave section on the front means any front impact will be directed onto the lens.</p>	<p>When the K series lens inevitably gets scratched or damaged the camera will require an expensive factory repair. Lenses are typically six times the cost of a germanium window (most likely not covered under warranty).</p>

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