

COMPETITOR COMPARISON



Mi-TIC S™

versus



Dräger UCF 9000

H x W x D

216 mm x 112 mm x 82 mm
(8 1/2 in x 4 7/16 in x 3 1/4 in)

H x W x D

280 mm x 125 mm x 110 mm
(11 in x 4 15/16 in x 4 5/16 in)

Mi-TIC S	UCF 9000	Competitive Advantage
Weight 830g (1.8 lbs).	1.4kg (3.1 lbs).	The Mi-TIC S is 570g (1.3 lbs) lighter than the UCF 9000 making all the difference for easy one handed use in the fire scene. The Mi-TIC S is the smallest and lightest NFPA compliant camera on the market today.
Scene Colourisation In Fire (standard) mode colourisation will only start to appear at temperatures above 150°C (300°F) regardless of the gain mode. Temperatures up to 150°C (300°F) appear in greyscale going from black to white. Above this, the colour changes through orange 500°C (930°F) to saturated red from approximately 600°C (1100°F). This means red is hot, nothing else.	In the standard colour mode each gain mode shows red as a different temperature: Red can be 130°C (266°F) or over 900°C (1652°F). The fire fighter will have to pay close attention to the colour bar to ensure that they interpret the display correctly.	Consider an object at 130°C (266°F) certainly hot enough to be considered dangerous. When the UCF 9000 changes gain mode the object will change from red to mid-grey. There is a risk that a fire fighter could misjudge the potential danger. Mi-TIC S colourisation means that red really does mean 'red hot', and fire fighters can rely on the consistent approach to make instinctive and safe decisions.
Battery recharge cycles Guaranteed for over 2000 cycles.	300 cycles.	A Dräger UCF 9000 user would potentially have to purchase 7 new batteries over the lifetime of 1 single Mi-TIC battery creating an increased cost of ownership over the life of the camera.
Truck Mount charger The Mi-TIC S has a multipurpose camera charger which can be used either as a truck or desktop charger. There is an option to charge up to 6 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.	Dräger charge an extra £300 (\$420) for a truck charger which comes as standard with the Mi-TIC S.
Core Avon Protection is a 'sensor up' manufacturer.	Dräger buy in their cores from other manufacturers.	It is because we are in full control of our core assembly that we are able to add fundamental imaging enhancements such as Dynamic Scene Enhancement.

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

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

AVON
PROTECTION

Mi-TIC S	UCF 9000	Competitive Advantage
<p>Additional Features</p> <ul style="list-style-type: none"> • Inbuilt laser • Inbuilt electronic compass • Multiple colour modes • Hot spot tracker • Cold spot tracker • Configuration tool • Multi lanyard attachment points • Image and video capture • Image freeze • Video playback • Black box recording • Digital zoom 	<ul style="list-style-type: none"> • Laser pointer • Multiple colour modes • Image and video capture • Black box recording • Video playback • Image freeze • Digital zoom 	<p>Based on customer feedback, Avon Protection took the success of the Mi-TIC to the next level by adding a laser to aid communication, an electronic compass for greater scene awareness, additional colour modes, a hot/cold spot tracker to locate the hottest/coldest part in the scene and image and video capture all free of charge. With the configuration tool the user can define how much or how little they use.</p> <p>The argus range of thermal imaging cameras offer the best "as standard" proposition on the market.</p>
<p>Start up time 5 seconds.</p>	<p>30 second start up time, to try and address this problem they use a standby mode. The camera switches on from standby when the handle is held. This is NOT a feature but a FIX to the problem.</p>	<p>The issue with having a standby mode is that fire fighters will always have two choices; a 30 second start up time or a situation where they are needlessly draining their battery in standby mode. They will not have the peace of mind that the battery hasn't discharged. Another problem is that whenever they arrive at a scene, they must remember to switch the camera on to avoid long delays which is impractical.</p>
<p>Dynamic Scene Enhancement The Mi-TIC S uses a temperature conversion method that means more of the on-screen brightness scale is used to display objects at lower temperatures, while still displaying detail in the fire itself. This means the user can see the most important objects (exit points, casualties etc) even in the presence of high temperature fires.</p>	<p>The UCF 9000 uses a temperature conversion method that means when in the presence of a hot fire all the important objects will be effectively 'squeezed' into a very narrow area of the brightness scale. Meaning these details are very difficult to see.</p>	<p>With the Mi-TIC S, the user can see more detail throughout the scene while in the presence of objects at very high temperatures. Always recommend a trial and evaluation in a fire scenario and the user will see the difference.</p>
<p>Temperature sensitivity NETD <0.05°C (<32.09°F).</p>	<p><0.035°C (<32.63°F).</p>	<p>Drager do not outline on their datasheet what this figure actually relates to i.e MDTD/NETD. Regardless of the sensor the LCD will only show a certain number of greys in the scale and therefore the image will appear the same on both camera LCD's.</p>
<p>Battery installation Can be easily latched on/off the Mi-TIC without the use of tools and still remain NFPA compliant.</p>	<p>Battery can only be fitted using a tool to loosen the screws under the handgrip with the supplied allen key. The user manual states it is important for the user to ensure the seal on the new battery is clean and advises that the seal is wiped with a lint-free cloth.</p>	<p>No need to carry tool to remain compliant. Failure to do up the lock makes the camera Class I, Div 2 non-compliant and therefore NFPA1801 non-compliant. There is a risk that disconnecting the battery while the camera is in use will cause a spark and this poses an explosion hazard in Hazardous Locations. On a more practical level, doing up the lock to make sure the battery doesn't fall out during use is a fiddly and time consuming task.</p>
<p>Battery technology Lithium Iron Phosphate batteries are certified for use at temperatures over 85°C (185°F), commonly experienced by fire fighters.</p>	<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 temperatures, or a severe mechanical shock there is a high risk of rapid thermal runaway (explosion) not present in Lithium Iron Phosphate.</p>	<p>The Mi-TIC S uses a far safer battery technology than the UCF 9000 with a far lower risk of explosion. Search 'lithium ion battery explosion' on You-Tube for examples of rapid thermal runaway.</p>

<p>Operating temperature -20°C (-4°F) to 85°C (185°F).</p>	<p>-40°C (-40°F) to 85°C (185°F).</p>	<p>The UCF 9000 will operate at -40°C (-40°F) but we guarantee the battery will struggle to start at -40°C (-40°F). There is no uncertainty with the Mi-TIC S, the camera will be able to start at -20°C (-4°F) and operate continuously at that temperature. The camera will then be able to operate in conditions at -40°C (-40°F).</p>
<p>Germanium window Replaceable in the field.</p>	<p>A fixed germanium window. Not replaceable.</p>	<p>With Dräger the camera would have to be returned to the factory for repair however with the argus® range the window is field replaceable which not only makes it more cost effective but it also means that fire fighters are not left without a camera for a simple repair.</p>

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