AVON PROTECTION

The argus® range of thermal imaging cameras

Mi-TIC® E
Mi-TIC® EL
Mi-TIC® 320
Mi-TIC® S

NFPA1801:2018 APPROVED!
Introduction to the argus® range of thermal imaging cameras

**Heritage**
The argus engineers developed the first ever hand held thermal imager for firefighting over 35 years ago.

Having been developed for firefighting in the UK, the camera was adopted by UK Naval firefighting personnel; its purpose was to allow users to navigate through smoke filled compartments on naval vessels.

These were the first commercial handheld thermal imaging cameras ever used by US firefighters too.

**Safety Through Innovation**
argus engineers haven’t stopped innovating since. Today the argus range of thermal imaging cameras are the lightest and smallest NFPA1801:2018 compliant cameras available.

Whether it’s the safest battery technology, unmistakable application of colors or the highest available dynamic temperature range, argus innovations are always specifically designed with firefighter safety in mind.

**Market Leaders**
Avon Protection are the leading provider of thermal imagers in Europe, with growing share in North America and Asia.

**Manufacturing Capabilities**
All of the argus range of thermal imaging cameras are are manufactured in the UK, where they are subjected to the strictest quality processes.
Retractable lanyard attachments

Field replaceable Germanium lens

Charger latching point NFPA1901:2016 Compliant

Charging, programming, and data access connections

Built in laser pointer (Mi-TIC S only)

Pocket clip

Rubberized display protection

On/Off / NFPA TI Basic Button

User configurable buttons

Standard 3 hour battery Optional 5 hour battery

Mi-TIC E
Mi-TIC 320

2.7” DISPLAY

Mi-TIC S
Mi-TIC E L

3.5” DISPLAY

High grip rubber over molding
Avon Protection is proud to present the newest development in the argusMi-TIC range, the IGNISEngine. This is the name given to a series of modifications and upgrades to the existing range of argus Mi-TIC Thermal Imaging Cameras (TIC’s).

After identifying new improvement opportunities, we have redesigned the core components of the Mi-TIC’s. Introducing a new sensor and lens to all cameras in the argus Mi-TIC range, Avon Protection now offers the most advanced firefighting TIC’s on the market.

The new suite of upgrades improves the image quality, providing enhanced levels of background detail and the clearest and safest view of a scene, optimised for use in the presence of a large fire.

We have redesigned, redeveloped and redefined the idea of thermal imagers for firefighting and continue to lead the market with the new IGNIS Engine.
Standard Mi-TIC Features

(1 and 3 button cameras)

**Dynamic Scene Enhancement**
Dynamic Scene Enhancement (DSE) technology increases the contrast between the fire and important details at lower temperatures such as exit point and obstacles.

**Direct Temperature Measurement**
Measures the “spot” temperature for quantifying hazards and comparing objects.

**Software Customization Tool**
Software Customization Tool enables end users to configure the functionality that they desire.

**Simple Activation**
Simply activate/deactivate any of the desired functionality.

**Black Box Recording**
Permanently records thermal video when the camera is turned on.

**Tri-Mode Sensitivity**
Automatically switches to the optimum level of sensitivity to give the lowest amount of noise over the widest possible temperature range.

**Customizable Start-Up Screen**
Personalize your camera with any image when the camera is turned on.

**Software updates**
Free periodic software updates available online to enhance performance and add features

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Standard Mi-TIC Features

(3 button cameras only)

**Image and Video Capture**
Image and video recording for post-operation and training review.

**Image and Video Preview**
Allows images and video to be previewed on screen.

**Image Freeze**
Image freeze function to investigate potentially high temperature areas in the fire scene (e.g. loft space) with the shortest possible exposure time.

**Application Modes**
6 specific application modes for easier image interpretation:

- **Fire Mode** – High dynamic range and imaging for interior structural Firefighting.
- **Overhaul Mode** – Easily identify hottest spots identified with red colorization.
- **Size Up Mode** – Easy colorization for size up from outside of the fire scene.
- **Inspection Mode** – Full color scheme for preventative maintenance applications.
- **White Hot Mode (gray scale only)** – White hot for general applications with no heat colorization.
- **Missing Person Mode** – Optimized contrast and blue colorization used to enhance search efforts in non-fire applications (wilderness/ automobile accidents/etc).
Advanced Mi-TIC Features

Extended Temperature Range
Extended dynamic temperature range on the Mi-TIC 320 and Mi-TIC S (1100°C /2000°F) allows firefighters to see detail even in the largest and hottest fires.

Laser
Laser pointer to aid communication.

Electronic Compass
Displays letters to show directional information for faster rescues and improved situational awareness.

Heat Seeker
Identifies and tracks the hottest point in the scene for directing the fire attack.

Cold Seeker
Identifies and tracks the coldest point in the scene e.g. to locate the air-pack of a downed firefighter.
<table>
<thead>
<tr>
<th>STANDARD CAMERA FEATURES</th>
<th>Mi-TIC E</th>
<th>Mi-TIC E L</th>
<th>Mi-TIC 320</th>
<th>Mi-TIC S</th>
</tr>
</thead>
<tbody>
<tr>
<td>320 X 240 Resolution</td>
<td>●</td>
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<tr>
<td>Digital spot temperature measurement</td>
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<td>●</td>
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<tr>
<td>Tri-Mode Sensitivity</td>
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<tr>
<td>Customizable Start-Up Screen</td>
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<tr>
<td>Black box recording included</td>
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<tr>
<td>Data transfer software and hardware</td>
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<tr>
<td>Digital video and image capture</td>
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<td>○</td>
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<tr>
<td>Display size (diagonal)</td>
<td>2.7”/ 69mm</td>
<td>3.5”/ 90mm</td>
<td>2.7”/ 69mm</td>
<td>3.5”/ 90mm</td>
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<td>Dynamic range</td>
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<td>1400°F/760°C</td>
<td>2000°F/1100°C</td>
<td>2000°F/1100°C</td>
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<tr>
<td>Multiple color and fire viewing modes</td>
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<tr>
<td>Highest dynamic range</td>
<td></td>
<td></td>
<td>●</td>
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<tr>
<td>Heat Seeker to locate hottest spot in the scene</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Cold Seeker to locate coldest spot on the scene</td>
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<td></td>
<td>●</td>
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<tr>
<td>Electronic compass for greater scene awareness</td>
<td></td>
<td></td>
<td>●</td>
<td></td>
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<tr>
<td>Laser pointer to aid communication</td>
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</table>

Available with three button cameras ○  As Standard ●
<table>
<thead>
<tr>
<th>APPLICATIONS</th>
<th>SUB APPLICATIONS</th>
<th>Mi-TIC €</th>
<th>Mi-TIC € L</th>
<th>Mi-TIC 320</th>
<th>Mi-TIC S</th>
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<tbody>
<tr>
<td>Ventilation location selection</td>
<td></td>
<td>■</td>
<td>■</td>
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<tr>
<td>Search and Rescue (fire &amp; non-fire)</td>
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<td>■</td>
<td>■</td>
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<tr>
<td>Seat of fire localization</td>
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<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
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<tr>
<td>Overhaul</td>
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<tr>
<td>Size Up</td>
<td></td>
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<tr>
<td>Interior Structural Firefighting</td>
<td>Fully developed fire (post flashover)</td>
<td></td>
<td></td>
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<tr>
<td>Interior Structural Firefighting</td>
<td>Rapid fire development (pre-flashover)</td>
<td></td>
<td></td>
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<tr>
<td>Interior Structural Firefighting</td>
<td>Burning materials</td>
<td></td>
<td></td>
<td>■</td>
<td>■</td>
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<tr>
<td>Interior Structural Firefighting</td>
<td>Surrounding materials</td>
<td></td>
<td></td>
<td>■</td>
<td>■</td>
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<tr>
<td>Interior Structural Firefighting</td>
<td>Room contents</td>
<td></td>
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<td>■</td>
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<tr>
<td>Interior Structural Firefighting</td>
<td>Seat of fire localization</td>
<td></td>
<td>■</td>
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</tr>
<tr>
<td>Hot Spot localization</td>
<td></td>
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<tr>
<td>Cold Spot Localization</td>
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<td>■</td>
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<tr>
<td>Directional Awareness/Compass</td>
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</tbody>
</table>
Lightweight size up imager – an affordable interior structural firefighting camera. The combination of low cost and long list of features make this the perfect tool for any fire department.

- Available in 1 or 3 button options.
- The lightest and most affordable NFPA1801:2018 compliant thermal imager for firefighters.
- Small and wearable at just 1lb 11oz (765g) with a large 2.7” (69mm) display.
- High dynamic temperature range: 1400°F (760°C) for excellent detail in day-to-day fire scenarios.

Powered by the IGNIS engine resulting in enhanced image quality, using the latest sensor technology and class leading battery technology.
FEATURES

2.7” LCD Display

Direct Temperature Measurement (DTM)

Tri-Mode Sensitivity

Customisable start-up screen

‘Black Box’ recording

User Replaceable Germanium window

No PC software required for image and video download – when the camera is docked, it is recognised as a removable device, like a USB memory stick

The most affordable NFPA certified thermal imager for firefighting.
Lightweight size up imager with an oversized display – an affordable interior structural firefighting camera. The combination of low cost and long list of features make this the perfect tool for any fire department.

- Available in 1 or 3 button options.
- 3 button models are user programmable.
- The lightest and most affordable NFPA1801:2018 compliant thermal imager for firefighters.
- Small and wearable at just 1lb 15oz (865g) with a large 3.5” (90mm) display.
- High dynamic temperature range: 1400°F (760°C) for excellent detail in day-to-day fire scenarios.

Powered by the IGNIS engine resulting in enhanced image quality, using the latest sensor technology and class leading battery technology.
## FEATURES

3.5” LCD Display  
Direct Temperature Measurement (DTM)  
Tri-Mode Sensitivity  
Customisable start-up screen  
Firefighting applications modes*  
• Fire mode  
• Overhaul  
• Size Up  
• Inspection  
Search and Rescue application modes*  
• White Hot  
• Heat Seeker Blue  
X2 and X4 Digital Zoom*  
Image Capture (1000 images)*  
Video Capture (8 hours)*  
‘Black Box’ recording  
Image Freeze*  
User Replaceable Germanium window  
No PC software required for image and video download – when the camera is docked, it is recognised as a removable device, like a USB memory stick  

* 3 button variants only

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The most affordable large screen thermal imager for firefighting.
Mi-TIC 320™

Lightweight high end thermal imaging with premium dynamic range and firefighting capabilities.

- User programmable.
- The lightest and most affordable NFPA1801:2018 compliant thermal imager for firefighters.
- Small and wearable at just 1lb 11oz (765g) with a large 2.7” (69mm) display.
- Highest dynamic temperature range: 2,000˚F (1100°C) for excellent detail in heavy firefighting applications.

Powered by the IGNIS engine resulting in enhanced image quality, using the latest sensor technology and class leading battery technology.
**FEATURES**

- 2.7” LCD Display
- Direct Temperature Measurement (DTM)
- Tri-Mode Sensitivity
- Customisable start-up screen
- Firefighting applications modes
  - Fire mode
  - Overhaul
  - Size Up
  - Inspection
- Search and Rescue application modes
  - White Hot
  - Heat Seeker Blue
- X2 and X4 Digital Zoom
- Image Capture (1000 images)
- Video Capture (8 hours) including ‘Black Box’ recording
- Image Freeze
- User Replaceable Germanium window - no need to send camera back to factory
- No PC software required for image and video download – when the camera is docked, it is recognised as a removable device, like a USB memory stick

The world’s smallest NFPA1801 certified high resolution thermal imager.
Mi-TiCS™

Premium light weight thermal imaging with industry leading dynamic range and oversized display for top performance in the most extreme firefighting environments. The most versatile thermal imager in the market.

- User programmable buttons.
- The lightest and most affordable NFPA1801:2018 compliant thermal imager for firefighters.
- Small and wearable at just 1lb 15oz (870g) with an oversized 3.5” (90mm) display.
- Highest dynamic temperature range: 2,000°F (1100°C) for excellent detail in the heavy firefighting applications.
- Laser pointer, compass, heat seeker hottest spot identifier, cold seeker – coldest spot indicator and much more.

Powered by the IGNIS engine resulting in enhanced image quality, using the latest sensor technology and class leading battery technology.
FEATURES

3.5" LCD Display
Direct Temperature Measurement (DTM)
Tri-Mode Sensitivity
Customisable start-up screen
Firefighting applications modes
• Fire mode
• Overhaul
• Size Up
• Inspection
Search and Rescue application modes
• White Hot
• Heat Seeker Blue
Heat Seeker
Cold Seeker
X2 and X4 Digital Zoom
Laser Pointer
Electronic Compass
Image Capture (1000 images)
Video Capture (8 hours) including 'Black Box' recording
Image Freeze
User Replaceable Germanium window
No PC software required for image and video download – when the camera is docked, it is recognised as a removable device, like a USB memory stick

The most advanced thermal imager for firefighting.
Carry Options

**Soft Carry Case**
- Made of lightweight Cotton Drill material.
- Provides an easy way to carry the camera.
- Protects camera and its accessories.

**Hard Carry Case**
- Available in black or yellow.
- Designed to safely stow all Mi-TIC models and accessories.
- Case shell made of polypropylene (PP).
- Certified with the STANAG 4280, DEF STAN 81-41 and ATA 300 standards.
- Automatic air pressure compensation valve.
- Strong, dustproof, waterproof (IP67 certified).
- Temperature resistant from -30° up to +80°C.
- Rubberized handle.
- Stackable.
- Two eyelets for padlocks (Ø 0.3 inch).

**Retractable Lanyard**
- Length 235mm extending to 470mm.
- NFPA1801:2018 compliant with Mi-TIC.
Battery Options

**AA Battery Pack**
- Red and yellow available.
- Uses seven AA batteries.
- Powers camera in excess of 4 hours.
- Provides an alternative to the rechargeable Mi-TIC batteries.

**Standard and Large Capacity Rechargeable Batteries**
- Standard available in red and yellow.
- Large available in red only.
- Standard Capacity powers camera in excess of 3 hours.
- Large capacity powers camera in excess of 5 hours.
- Features a thumb operated latch that allows it to be easily removed and re-attached to the camera during an exercise or back at the station without a tool.
- Uses Lithium Iron Phosphate (LiFeP04) technology which does not suffer from thermal runaway and consequent risk of explosion which is typical of other common Lithium batteries making them the right choice for operation in high operating temperatures.
- 5 year warranty.
- 2,000 battery recharge cycles.
Charging Station

- Dual use desktop/in-truck charger station.
- Download image and video via USB.
- Supplied with every camera.
- Truck rollover NFPA1901:2016 compliant.
- Charges camera and spare battery.
- 120V/240V AC or 12/24V DC.
- Daisy chain up to 6 chargers.

Warranties

**Mi-TIC E & Mi-TIC E L**

**Standard 3-5-10 warranty**
- Camera 3 years.
- Batteries 5 years.
- Sensor and Lens 10 years.

**Mi-TIC 320 & Mi-TIC S**

**Extended 5-5-10 warranty**
- Camera 5 years.
- Batteries 5 years.
- Sensor and Lens 10 years.
Purchasing Options

- Item is included as standard when ordering full kits.
- Item is available to purchase separately.

<table>
<thead>
<tr>
<th>ORDER CODE</th>
<th>Mi-TIC E</th>
<th>Mi-TIC E L</th>
<th>Mi-TIC 320</th>
<th>Mi-TIC S</th>
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<tbody>
<tr>
<td>1 Button Camera</td>
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<tr>
<td>3 Button Camera</td>
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<td>Retractable Lanyard</td>
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<td>AC and DC Power Cords</td>
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<td>Neck Strap</td>
<td>P7030NS</td>
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</table>
The *argus*® range of thermal imaging cameras

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