

argus[®]

thermal imaging from Avon Protection

Mi-TIC[™] E

Mi-TIC[™] S

THE NEW RANGE OF Mi-TIC
THERMAL IMAGERS FROM ARGUS[®]



argusdirect.com



The lightest and most affordable NFPA 1801 certified thermal imager

- Unique design is small and wearable at just 1.7lbs.
- High dynamic temperature range to 1400°F for excellent detail in day-to-day fire scenarios.



FEATURES AS STANDARD ACROSS THE RANGE

1. Image and video recording for post-operation and training review.
2. 6 application specific modes for easier image interpretation.



SIZE UP mode 

Early colorization for size-up from outside of the fire scene.



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

*MI-TIC S only



FIRE mode 

High dynamic range for use with fully developed fires at high temperatures.



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

*MI-TIC S only

The most advanced thermal imager for fire fighting

- **Larger 3.5"** display for a clearer view of the fire scene.
- **Light-weight** and wearable at only 1.8lbs.
- **Extended** dynamic temperature range to 2000°F for greater scene detail in larger, hotter fire scenarios.
- **Enhanced** feature set including laser pointer to aid communication, Electronic Compass* for greater scene awareness and Heat Seeker*/cold seeker* technology.



3. Dynamic Scene Enhancement (DSE) technology increases the contrast between the fire and important details at lower temperatures such as exit point and obstacles.
4. Image Freeze function to investigate potentially high temperature areas in the fire scene (eg loft space) with the shortest possible exposure time.
5. Software configuration tool to customize button functionality.
6. Space-saving truck mountable charger, capable of charging camera and spare battery simultaneously



OVERHAUL mode

Red colorization of the hottest parts of the scene for post-operation analysis to ensure there is no chance of the fire reigniting.



COLD SEEKER* Identifies and tracks the coldest point in the scene (eg to locate the air-pack of a downed firefighter).

*MI-TICS only

ADDITIONAL NEW MODES:



INSPECTION mode

Full color scheme for preventative maintenance of equipment and buildings.



WH mode

White hot for general search applications with no heat colorization.



MISSING PERSONS mode

Blue colorization of the hottest parts of the scene and optimized contrast for search operations in areas such as landscapes or traffic accident scenes.

CAMERA ORDER CODES

Code	Resolution	Buttons	Frame rate
MI-320-1-E	320x240	1	30Hz
MI-320-3-E	320x240	3	30Hz
MI-320-3-S	320x240	3	30Hz

WARRANTY

24-month warranty as standard. (Rechargeable battery pack excluded – Warranty for 12 months.)

Warranty can be extended for up to an additional three years at the time of purchase (exclusions apply).

ENVIRONMENTAL DATA

Thermal conditions	Each camera has been designed to operate: <ul style="list-style-type: none"> continuously between -20°C (-4°F) and +85°C (185°F) or 150°C (300°F) for 15 minutes 260°C (500°F) for 5 minutes
Sealing	IP67, will withstand immersion in water
Impact	Each camera will withstand a drop from a height of 2m (78 inches) onto concrete
Storage	It is recommended that for maximum effective operational life, the storage temperature is kept between -20°C (-4°F) and +40°C (104°F)

OPTICAL DATA

Detector	Mi-TIC E	Mi-TIC S
Dynamic range	-40°C to 760°C (-40°F to 1400°F)	-40°C to 1100°C (-40°F to 2000°F)
Direct Temperature Measurement	-40°C to 760°C (-40°F to 1400°F)	-40°C to 1100°C (-40°F to 2000°F)
Sensor type	Un-cooled Microbolometer	
Sensor material	Amorphous Silicon (ASI)	
Resolution	384 x 288px	
Pixel size	25µm	
Spectral response	7.5 – 14µm	

	Mi-TIC E	Mi-TIC S
MDTD (Full camera system sensitivity)	70mK (0.07°C) typical (Minimum Discernible Temperature Difference)	55mK (0.055°C) typical
NETD (Sensor sensitivity)	<50mK (<0.05°C)	
Refresh rate	60 Hz	

Lens

Lens material	Germanium Composite
Focal length	1m to infinity, optimized at 4m (3 ft to infinity, optimized at 13 ft)
Aperture	f/1.0
Field of view	50° horizontal, 37.5° vertical 62° diagonal

Display	Mi-TIC E	Mi-TIC S
Size	69mm (2.7 inches)	90mm (3.5 inches)
Type	High grade, industrial, color TFT active matrix LCD	
Pixel format	QVGA 320 x 240, (each pixel RGB format, total pixels 230,400 pixels)	
Video input	Sensor synchronized direct digital drive	

To arrange a demonstration, visit:

argusdirect.com

MECHANICAL DATA

	Mi-TIC E	Mi-TIC S
Camera dims (H x W x D)	203mm x 96mm x 71mm 8 x 3 ¾ x 2 13/16 Inches	216mm x 110mm x 82mm 8 ½ x 4 5/16 x 3 ¼ inches
Camera weight		
without battery	600g (1 lb 5 oz)	705g (1 lb 9 oz)
with std battery	765g (1 lb 11 oz)	870g (1 lb 15 oz)
high capacity battery	855g (1 lb 14 oz)	960g (2 lb 2 oz)
Battery dims (H x W x D)	(std Battery) 87mm x 76mm x 28mm - 3 7/16 x 3 x 1 1/8 inches (high capacity battery) 87mm x 76mm x 35mm - 3 7/16 x 3 x 1 3/8 inches	
Battery weight	165g (6oz) (std battery) 255g (9oz) (high capacity battery)	
Charger dims (H x W x D)	167mm x 112mm x 120mm 6 9/16 x 4 7/16 x 4 ½ inches	
Charger weight	550g (1lb and 3oz)	
Main camera body	Radel®R-5100 and Santoprene®	
LCD window	Ultrason® E 2010 HC	
LCD bumper	Santoprene®	
GE Window collar	Radel®R-5100 and Santoprene®	
Lens window	Germanium (2mm thick) with durable coating	

ELECTRICAL DATA

Power consumption	<3 W typical
Start-up time	Under 5 seconds
Battery type	Lithium Iron Phosphate Rechargeable Battery
Battery capacity	1100 mAh, 6.6V (std battery); 2500 mAh, 6.6V (high capacity battery)
Std Battery life	In excess of 2hrs @ ambient temperature (22°C, 72°F)
Std Battery charge time	Less than 2 hours
High Capacity Battery Life	In excess of 5hrs @ ambient temperature (22°C, 72°F)
High Cap, Battery charge time	Less than 4.5 hours
Battery recharge cycles	Over 1000 cycles
Battery charging temp.	5°C to 40°C (41°F to 104°F)
Charger input voltage	11V – 30V DC (12V and 24V vehicle systems)
Charger operating temp.	0°C to 40°C (32°F to 104°F)

COMPLIANCE DATA

Performance	NFPA1801 – 2013 Standard on Thermal Imagers for Fire Services	
Safety	IEC 60950-1 and related national standards (Tamb +80°C max) ANSI/ISA 12.12.01:2007 Class 1, Division 2, Groups C, D T4 -25°C (-13°F) to +70°C (158°F) – BLPSN and BLPXN batteries only	IEC 60950-1 and related national standard (Tamb +80°C max)
Emissions RFI/EMC	BS EN 61000-6-3:2007 + A1:2011, BS EN 50498:2010, ICES-003(2012), FCC CFR-47 Subpart B, AUS/NZ 4251.1	
Immunity	BS EN 61000-6-2:2005, BS EN 50498:2010	
Vibration/Shock	BS EN 60721-3-2 Class 2M3	
RoHS	All parts of the system are compliant with EU directive 2011/65/EC	
Laser	IEC/EN 60825:2014 & 21 CFR 1040.10 & 1040.11 except for deviations pursuant of Laser Notice No. 50, dated June 24, 2007	

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