

Mi-TIC S™



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INTRODUCTION

The Mi-TIC S is part of the argus range of thermal imaging cameras and the world's smallest thermal imager to feature a large format, high resolution display for advanced fire fighting applications. The camera provides a crystal clear image with a superb dynamic range: you can clearly view extremely high temperatures up to 1100°C (2000°F) and at the same time see very low temperature objects, which is ideal for casualty searches.

Every Mi-TIC S is supplied with a unique dual use desktop/in-truck charger station which securely retains and charges both the thermal imager and a spare battery. The charger stations can be daisy-chained together, up to a maximum of 6 units.

PERSONAL

Weighing approximately 870g (31oz) the Mi-TIC S is a small format thermal imager that can be easily and comfortably held in the palm of your hand. Unlike many thermal imagers, the Mi-TIC S design allows it to be worn in multiple ways – in the hand, inside a pocket, clipped outside a pocket, clipped to a lanyard or hung around the neck.

SIMPLE

With a thumb operated green on/off button and superb start up time of 5 seconds, the Mi-TIC S is simple to use.

SAFE

The argus Mi-TIC S has Class I, Division 2 and Class II, Division 2 Non Incendive certifications. The use of Lithium Iron Phosphate technology ensures the Mi-TIC S delivers in excess of 3 hours of battery life over 2,000 plus charge cycles. They are inherently safe due to the use of patented nanophosphate® technology.



CAMERA STANDARD FEATURES

The Mi-TIC S comes with the most advanced features available in any Thermal Imaging Camera. These include:

3.5" LCD Display	X2 and X4 Digital Zoom
Direct Temperature Measurement (DTM)	Laser Pointer
Tri-Mode Sensitivity	Electronic Compass
Customisable start-up screen	Image Capture (1000 images)
Firefighting applications modes: <ul style="list-style-type: none"> • Fire mode • Overhaul • Size Up • Inspection 	Video Capture (16 hours) including 'Black Box' recording
Search and Rescue application modes: <ul style="list-style-type: none"> • White Hot • Heat Seeker Blue 	Image Freeze
Heat Seeker	User Replaceable Germanium window (Order code: ARG_MI_RWS)
Cold Seeker	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

CAMERA STANDARD ACCESSORIES

The Mi-TIC S comes with the following accessories as standard:

Two argus® Mi-TIC Lithium Iron Phosphate Battery Packs. (Standard) (Order code: ARG_MI_BLPSPN-2; NSN: 6140-99-271-4958)	Retractable Lanyard. (Order code: ARG_MI_RL)
Truck/Desktop Charger Dock Station (Order code: ARG_MI_CS; NSN: 6130-99-388-7164)	Charger Station Mounting Bracket (Order code: ARG_MI_MB; NSN: 5340-99-705-4328)
Charger Power Supply with US, UK Europe, Aus and South America plugs (Order code: ARG_MI_PSU; NSN: 6130-99-513-9799)	USB Connection Lead for connecting dock to PC / Laptop. (Order code: ARG_MI_USB; NSN: 5995-99-938-6020)
	Pocket Clip (Order code: ARG_MI_PCLIP_S)
	Quick Start Guide

CAMERA OPTIONAL ACCESSORIES

AA Battery Pack. (Order code: ARG_MI_BAA)	argus® Soft Carry Case. Order code: (P7030SC)
argus® Mi-TIC Black Hard Case. (Order code: ARG_MI_BHC)	argus® Neck Strap. Order code: (P7030NS)



CAMERA ORDER CODES

Code	NSN	Kitting	Resolution	Framerate
MI-TIC-S-3	5855-99-258-4363	FULL KIT	320x240	30Hz
MI-TIC-S-3_CAM	N/A	Camera only	320x240	30Hz
MI-TIC-S-3_NE	TBA	FULL KIT, Hard Case & Neck Strap	320x240	30Hz

WARRANTY

5 year Camera Warranty
 5 year Battery Warranty
 10 year Focusing Lens and Sensor Warranty

ENVIRONMENTAL DATA

Thermal conditions	The 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	The 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	
Sensor type	Un-cooled Microbolometer
Sensor material	Amorphous Silicon (ASi)
Resolution	384 x 288px
Pixel size	17µm
Spectral response	7.5 – 14µm
MDTD (Full camera system sensitivity)	50mK (0.05°C) typical (Minimum Discernible Temperature Difference)
NETD (Sensor sensitivity)	<50mK (<0.05°C)
Dynamic range	-40°C to 1100°C (-40°F to 2000°F)
Refresh rate	60Hz
Direct Temperature Measurement (DTM)	-40°C to 1100°C (-40°F to 2000°F)
Lens	
Lens material	Germanium Composite
Focal length	1m to infinity, optimised at 4m (3ft to infinity, optimised at 13ft)
Aperture	f/1.0
Field of view	50° horizontal, 37.5° vertical, 62° diagonal
Display	
Type	High grade, Industrial, colour TFT active matrix LCD
Size	90mm (3.5 inches)
Pixel format	QVGA 320 x 240, (each pixel RGB format, total pixels 230,400 pixels)
Video input	Sensor synchronised direct digital drive
Backlight	350 cd/m ²

MECHANICAL DATA

Camera dims (H x W x D)	216mm x 110mm x 82mm (8½ x 4¼ x 3¼ inches)
Camera weight	705g (25oz) without battery 870g (31oz) with standard battery
Battery dims (H x W x D)	87mm x 76mm x 28mm (standard battery)
Battery weight	165g (6oz) (standard battery)
Charger dims (H x W x D)	167mm x 112mm x 120mm
Charger weight	550g (1lb 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	5 seconds typical
Battery type	Lithium Iron Phosphate Rechargeable Battery
Battery capacity	1500mAh, 6.6V (standard battery)
Std Battery life	In excess of 3 hours @ ambient temperature (22°C, 72°F)
Std Battery charge time	Less than 3 hours
Battery recharge cycles	Over 2000 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	NFPA 1801:2018 Standard on Thermal Imagers for the Fire Service
Safety	IEC 62368-1:2014 and related national standards ANSI/ISA 12.12.01:2015 Class I, Div 2, Groups C, D T4; Class II, Div 2 Groups F, G T4
Emissions RFI/EMC	EN 55032:2015, Class A EN 54098:2010 FCC CFR 47 subpart 15b, ICES 003:2017 AUS/NZ 4251.1
Immunity	EN 55103-2:2009
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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