Mi-TIC S™

Powered by the IGNIS engine

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 firefighting 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. Multiple charger stations can be daisy-chained together up to a maximum of 6 units.

PERSONAL

Weighing approximately 870g (1.9lb), the Mi-TIC S is a small footprint 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 up to 4 hours of battery life over 2,000 plus charge cycles. The Mi-TIC rechargeable batteries are inherently safe due to the use of patented nanophosphate® technology.

CAMERA WARRANTY 5 YEAR Mi-TIC S

BATTERY WARRANTY 5 YEAR Mi-TIC S

SENSOR AND LENS WARRANTY 10 YEAR Mi-TIC S

CAMERA STANDARD FEATURES

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

- 3.5" (90mm) LCD Display
- Direct Temperature Measurement (DTM)
- Tri-Mode Sensitivity
- Customizable Start-Up Screen
- Firefighting Applications Modes:
  - Fire
  - Fire Plus
  - Overhaul
  - Size-Up
- Search and Rescue Application Modes:
  - White Hot
  - Missing Person
- Heat Seeker
  Cold Seeker
- X2 and X4 Digital Zoom
- Laser Pointer
- Electronic Compass
- Image Capture (1000 images)
- Video Capture (up to 16 hours)
- "Black Box" Video Recording (up to 16 hours)
- Image Freeze
- User Replaceable Germanium Window (Order code: ARG_MI_RWS)
- No PC Software required for image and video download – when the camera is docked, it is recognized 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 (Order code: ARG_MI_BLR; NSN: 6140-99-271-4958)
- Desktop/Vehicle Charger Station (Order code: ARG_MI_CS; NSN: 6140-99-853-5904)
- Charger Power Supply with US, UK, Europe, Aus and South America Plugs (Order code: ARG_MI_PSU; NSN: 6130-99-513-9799)
- Retractable Lanyard (Order code: ARG_MI_RL)
- Charger Station Mounting Bracket (Order code: ARG_MI_MB; NSN: 5340-99-705-4328)
- 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 (non-NFPA) (Order code: ARG_MI_BAA)
- argus® Mi-TIC Black Hard Case (Order code: ARG_MI_BHC)
- argus® Soft Carry Case Order code: (P7030SC)
- argus® Neck Strap Order code: (P7030NS)

CAMERA ORDER CODES

Code	NSN	Kitting	Resolution	Frame Rate
MI-TIC-S-3	5855-99-258-4363	FULL KIT	320x240	30Hz
MI-TIC-S-3_CAM	N/A	Camera only	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: • continuously between -20°C (-4°F) and +85°C (185°F) or • at 150°C (300°F) for 15 minutes • at 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 (6.5ft) 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	384x288px
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, optimized at 4m (3ft to infinity, optimized at 13ft)
Aperture	f/1.0
Field of view	50° horizontal, 37.5° vertical, 62°diagonal

DISPLAY

Type	High-grade, industrial, color TFT active matrix LCD
Size	90mm (3.5")
Pixel format	QVGA 320x240 (each pixel RGB format; total 230,400 pixels)
Video input	Sensor synchronized direct digital drive
Backlight	350 cd/m^2

MECHANICAL DATA

Camera dims (H x W x D)	216mm x 110mm x 82mm with battery (8.5" x 4.3" x 3.2")
Camera weight	695g (1.5lb) without battery 870g (1.9lb) with battery
Battery dims (H x W x D)	87mm x 76mm x 28mm (3.4" x 3.0" x 1.1")
Battery weight	175g (6oz)
Charger dims (H x W x D)	167mm x 112mm x 120mm (6.5" x 4.4" x 4.7")
Charger weight	600g (1.3lb)
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	1800mAh, 6.4V
Battery life	Up to 4 hours @ ambient temperature (22°C / 72°F)
Battery charge time	Less than 4 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 mains adapter	100V - 240V (50Hz - 60Hz)
Charger operating temp.	0°C to 40°C (32°F to 104°F)

COMPLIANCE DATA

Performance	NFPA 1801:2021 Standard on Thermal Imagers for the Fire Service
Safety	IEC 62368-1:2014 and related national standards UL 121201 9th Ed. / CSA C22.2 No. 213:2017 Class I, Div 2, Groups C, D T4; Class II, Div 2, Groups F, G T4 CAN/CSA C22.2 No. 61010-1-12 UL 61010-1 3rd Ed.
Battery	IEC 62133-2:2017 UN/DOT 38.3
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
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
Rollover	Meets requirements of NFPA 1901:2016 Standard for Automotive Fire Apparatus