

thermal imaging from Avon Protection

# Mi-TICS



The argus® Mi-TIC S is 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 argus 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 argus 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 argus 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 argus  $^{\circ}$  Mi-TIC S is simple to use.

## SAFE

The argus Mi-TIC S has Class I, Division 2 Non Incendive certification. The use of Lithium Iron Phosphate technology ensures the argus Mi-TIC S delivers 2 hours of battery life over 1,000s of cycles. They are inherently safe due to the use of patented nanophosphate technology.

TO BOOK A DEMONSTRATION OR FIND OUT MORE GO TO:

argusdirect.com







## **CAMERA STANDARD FEATURES**

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

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 (16 hours) including 'Black Box' recording

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 recognised as a removable device, like a USB memory stick

#### **CAMERA STANDARD ACCESSORIES**

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

Two argus<sup>®</sup> Mi-TIC Lithium Iron Phosphate Battery Packs. (Standard)

(Order code: ARG\_MI\_BLPSN)

Truck/Desktop Charger Dock with mains plug and universal mounting plate. (US, UK, Europe, Aus and South America) (Order code: ARG\_MI\_CS)

Retractable Lanyard. (Order code: ARG\_MI\_RL)

USB Connection Lead for connecting dock to PC / Laptop. (Order code: ARG\_MI\_USB)

Pocket Clip

(Order code: ARG\_MI\_PCLIP\_S)

Quick Start Guide

#### **CAMERA OPTIONAL ACCESSORIES**

AA Battery Pack. (Order code: ARG\_MI\_BAA)

argus<sup>®</sup> Mi-TIC Black Hard Case. (Order code: ARG\_MI\_BHC)

argus° Mi-TIC Lithium Iron Phosphate Battery (High capacity). (Order code: ARG\_MI\_BLPL) argus<sup>®</sup> Soft Carry Case. Order code: (P7030SC)

argus<sup>®</sup> Neck Strap. Order code: (P7030NS)

Please refer to the argus website for details.

# CAMERA SPECIFICATION



## **CAMERA ORDER CODES**

Code	Resolution	Buttons	Frame rate
MI-320-3-S	320x240	3	30Hz
MI-329-3-S	320x240	3	9Hz

## **WARRANTY**

5 Year Camera Warranty
5 year Battery Warranty
10 year focusing long and Sor

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 • 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	25μm	
Spectral response	7.5 – 14µm	
MDTD (Full camera	50mK (0.05°C) typical (Minimum Discernible	
system sensitivity)	Temperature Difference)	
NETD (Sensor	<50mK (<0.05°C)	
sensitivity)		
Dynamic range	-40°C to 1100°C (-40°F to 2000°F)	
Refresh rate	60 Hz	
Direct Temperature	-40°C to 1100°C (-40°F to 2000°F)	
Measurement (DTM)		
Lens		
Lens material	Germanium Composite	

Lens	
Lens material	Germanium Composite
Focal length	1m to infinity, optimised at 4m (3 ft to infinity, optimised at 13 ft)
Aperture	f/1.0
Field of view	50° horizontal, 37.5° vertical, 62° diagonal
Display	
Туре	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 <sup>2</sup>

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Avon Protection, a trading name of Avon Polymer Products Limited, Hampton Park West, Melksham, SN12 6NB, United Kingdom

## **MECHANICAL DATA**

Camera dims (H x W x D)	216mm x 110mm x 82mm (8½ x 45/16 x 3¼ inches)
Camera weight	705g (25 oz) without battery 870g (31 oz) with std battery 960g (34 oz) with high capacity battery
Battery dims (H x W x D)	87mm x 76mm x 28mm (std battery) 87mm x 76mm x 35mm (high capacity battery)
Battery weight	165g (6oz) (std battery) 255g (9oz) ( high capacity battery)
Charger dims (H x W x D)	167mm x 112mm x 120mm
Charger weight	550g (1lb and 3 oz)
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	1100 mAh, 6.6V (std battery); 2500mAh, 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	NFPA 1801:2013 Standard on Thermal Imagers for the Fire Service
Safety	IEC 60950-1:2005+A1:2009+A2:2013 and related national standards (Tamb +80°C max.) ANSI/ISA 12.12.01:2007 Class I, Division 2, Groups C, D T425°C (-13°F) to +70°C (158°F)
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