

SAFETY AND  
INNOVATION

# argus®

thermal imaging from Avon Protection

## Mi-TIC S™



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 upto 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 830g (29 oz) 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® Mi-TIC S is simple to use.

### SAFE

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 (8 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® 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® Mi-TIC Black Hard Case. (Order code: ARG\_MI\_BHC\_S)

argus® Mi-TIC Lithium Iron Phosphate Battery (High capacity). (Order code: ARG\_MI\_BLPL)

argus® Mi-TIC Lithium Iron Phosphate Battery (Xtra) (Order code: ARG\_MI\_BLPXN)

argus® Soft Carry Case Order code: (P7030SC)

argus® Neck Strap Order code: (P7030NS)

Please refer to the argus website for details.

**CAMERA ORDER CODES**

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

**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**

<b>Thermal conditions</b>	The camera has been designed to operate: <ul style="list-style-type: none"> <li>continuously between -20°C (-4°F) and +85°C (185°F) or</li> <li>150°C (300°F) for 15 minutes</li> <li>260°C (500°F) for 5 minutes</li> </ul>
<b>Sealing</b>	IP67, will withstand immersion in water
<b>Impact</b>	The camera will withstand a drop from a height of 2m (78 inches) onto concrete
<b>Storage</b>	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**

<b>Sensor type</b>	Un-cooled Microbolometer
<b>Sensor material</b>	Amorphous Silicon (aSi)
<b>Resolution</b>	384 x 288px
<b>Pixel size</b>	25µm
<b>Spectral response</b>	7.5 – 14µm
<b>MDTD (Full camera system sensitivity)</b>	55 mK (0.055°C) typical (Minimum Discernible Temperature Difference)
<b>NETD (Sensor sensitivity)</b>	<50mK (<0.05°C)
<b>Dynamic range</b>	-40°C to 1100°C (-40°F to 2000°F)
<b>Refresh rate</b>	60 Hz
<b>Direct Temperature Measurement (DTM)</b>	-40°C to 1100°C (-40°F to 2000°F)

**Lens**

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

**Display**

<b>Type</b>	High grade, Industrial, colour TFT active matrix LCD
<b>Size</b>	90mm (3.5 inches)
<b>Pixel format</b>	QVGA 320 x 240, (each pixel RGB format, total pixels 230,400 pixels)
<b>Video input</b>	Sensor synchronised direct digital drive
<b>Backlight</b>	350 cd/m <sup>2</sup>

**MECHANICAL DATA**

<b>Camera dims (H x W x D)</b>	216mm x 110mm x 82mm (8 1/2 x 4 5/16 x 3 1/4 inches)
<b>Camera weight</b>	705g (1lb 9oz) without battery 870g (1lb 15oz) with std battery 960g (2lb 2oz) with high capacity battery
<b>Battery dims (H x W x D)</b>	87mm x 76mm x 28mm (std battery) (3 7/16 x 3 x 1 1/8 inches) 87mm x 76mm x 35mm (high capacity battery) (3 7/16 x 3 x 1 3/8 inches)
<b>Battery weight</b>	165g (6oz) (std battery) 255g (9oz) (high capacity battery)
<b>Charger dims (H x W x D)</b>	167mm x 112mm x 120mm (6 9/16 x 4 7/16 x 4 1/2 inches)
<b>Charger weight</b>	550g (1lb and 3 oz)
<b>Main camera body</b>	Radel®R-5100 and Santoprene®
<b>LCD window</b>	Ultrason® E 2010 HC
<b>LCD bumper</b>	Santoprene®
<b>Ge Window collar</b>	Radel®R-5100 and Santoprene®
<b>Lens window</b>	Germanium (2mm thick) with durable coating

**ELECTRICAL DATA**

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

**COMPLIANCE DATA**

<b>Safety</b>	IEC 60950-1 and related national standards (T <sub>amb</sub> +80°C max)
<b>Emissions RFI/EMC</b>	BS EN 61000-6-3:2007 + A1:2011, BS EN 50498:2010, ICES-003(2012), FCC CFR-47 Subpart B, AUS/NZ 4251.1
<b>Immunity</b>	BS EN 61000-6-2:2005, BS EN 50498:2010
<b>Vibration/Shock</b>	BS EN 60721-3-2 Class 2M3
<b>RoHS</b>	All parts of the system are compliant with EU directive 2011/65/EC
<b>Laser</b>	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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