

INTRODUCTION

The Argus™4Lite Thermal Imaging Camera is a low cost, high quality solution to meet the needs of every firefighter.

The Argus™4Lite uses the same highly successful Amorphous Silicon (ASi) Microbolometer Detector used in the Argus™4 but allows the end-user to customise their camera to the features they require.

The Argus™4Lite is a simple to operate, robust, self-contained camera, which has fully automatic operation; no control or adjustment, is required in use. The camera has been specifically designed to help firefighters to see through smoke, identify and rescue casualties and locate hot spots or the seat and spread of the fire.

The Argus™4Lite is constructed from high quality Radel®R-5100, which has been chosen for its strength, resistance to heat, water and impact. Protection from shock is provided by a combination of rugged components, optimum mechanical design and protective bumpers. The camera is sealed to allow short-term total immersion in water (IP67). No end-user maintenance is required other than recharging of batteries and post-use external cleaning with a soft cloth.

Power for the Argus™4 is provided by an integral battery pack located on the top of the camera. The camera has a single on/off button with a delayed off operation to prevent accidental power-down during use. The camera will display a start-up screen until a usable thermal image is produced.

CAMERA STANDARD FEATURES

- Tri-Mode Sensitivity for increased temperature range performance.
- Colour battery level indicator.
- User replaceable external fittings.

STANDARD ACCESSORIES

- Soft carry bag
- Side straps
- One rechargeable battery
- AC or DC battery charger
- Operating instructions

OPTIONAL FEATURES

The Argus™4Lite can be supplied with the same advanced features available on the Argus™4. These features include:

- **Dynamic Scene Colorisation. (DSC)**
Colorises the thermal image to allow the firefighter to pinpoint the hottest areas within the fire scene and is set up by the use of a supplied remote control.
- **Direct Temperature Measurement (DTM)**
Displays both the temperature of objects within a defined area of the thermal scene and also the ambient temperature of the environment using a sensor mounted on the front of the camera.

The above features can be supplied with the camera at time of purchase or added as an after sales upgrade.



WARRANTY

- The camera is supplied with a 2-year warranty as standard.
- Warranty can be extended for up to three years at time of purchase.

CONFIGURATION

Camera	Order Code
Argus™4Lite	P7030/LT
Argus™4Lite + DSC Option	P7030/LT/C
Argus™4Lite + DTM Option	P7030/LT/S
Argus™4Lite + DSC + DTM Option	P7030/LT/SC

Optional Accessories	Order Code
Station Battery Charger	P7030BC and P7030CS
Truck Battery Charger	P7030TBC
Truck Storage Mount	P7030TSM
Truck Storage Mount and Battery Charger	P7030TSMBC
Rechargeable Battery Pack	P7030R
Handle	P7030HA
Neck Strap	P7030NS
Retractable Lanyard	P7030RL
Hard Carry Case	P7030HC

CAMERA SPECIFICATION

Compliance Data

RFI/EMC	Conducted Emissions -	BS EN 61000-6-3:2001 Class B FCC CFR-47 Part 15
	Radiated Emissions -	BS EN 61000-6-3:2001 Class B FCC CFR-47 Part 15
Safety	Electrostatic Discharge -	BS EN 61000-6-1:2001 Class B IEC 60950-1 and related national standards
	Vibration/Shock	BS EN 60721-3-2 Class 2M3.
Restriction of the use of Hazardous Substances in electrical and electronic equipment (RoHS)		All parts of the system are compliant with EU directive 2002/95/EC

Environmental Data

Thermal conditions -	The camera has been designed to operate for: • 45 minutes at 80 °C (176 °F) • 15 minutes at 150 °C (300 °F) • 7 minutes at 260 °C (500 °F) • Minimum operating temperature is -10 °C (14 °F)
Sealing -	The camera is sealed to allow short-term immersion in water (IP67)
Impact -	The camera has been designed to withstand a drop from a height of 2 metres (78 inches).
Vibration -	The camera has been design to withstand transportation vibration defined by BS EN 60721-3-2 Class 2M3.
Storage -	The camera can be stored for extended periods. It is recommended that for maximum effective operational life, the storage temperature is kept between -10 °C and +40 °C (14 °F and 104 °F) and the camera is retained in its carry case when not in use.

Optical Data

Detector

Sensor type -	Uncooled Microbolometer
Sensor material -	Amorphous Silicon (ASi)
Resolution -	160 x 120
Spectral response -	7 – 14 µm
MDTD -	< 0.1 °C
(Minimum Discernable Temp Difference)	
Dynamic range -	-40 °C to 800 °C (-40 °F to 1480 °F) using 3 ranges with auto-switching between ranges.
Refresh rate -	30 Hz
Spot temperature range -	-40 °C to 800 °C (-40 °F to 1480 °F)
Ambient temperature range -	-15 °C to 150 °C (5 °F to 300 °F)

Lens

Lens material -	Germanium
Focal length -	6 mm
Focal distance -	1 m to infinity, optimised at 4 m (3 feet to infinity, optimised at 13 feet)
Horizontal aperture -	f/1.0
Field of view -	50° horizontal

Viewing

Display type -	Transflective, active matrix colour TFT
Display size -	90 mm (3.5 inches)
Backlight -	White LED

Mechanical Data

Overall dimensions (H x W x D) -	130 mm x 185 mm x 185 mm (5.1 x 7.2 x 7.2 inch) (nominal)
Weight without battery -	< 1.2 kg (2.6 pounds)
with battery -	< 1.5 kg (3.3 pounds)

Materials

Outer camera case -	Radel® R-5100
Rear bumper -	Multiflex®
Front bumper -	Multiflex®
Neck strap -	Nomex®
Side straps -	Nomex®

Electrical Data

Power Supply

Power consumption -	3 W typical
Start-up time -	<5 seconds

Battery

Type -	Ni-MH Rechargeable Battery
Capacity -	2300 mAh
Battery life -	4 hours @ ambient temperature (22 °C, 72 °F)
Charge time -	2 hours nominal
Recharge cycles -	500 @ 80% capacity
Length -	125 mm (4.8 inches) nominal
Width -	55 mm (2.2 inches) nominal
Height -	50 mm (2 inches) nominal
Net weight -	220 g (0.1 pounds) nominal
Charging temperature -	0 °C – 40 °C (32 °F – 104 °F)
	65 °C (150 °F) can be tolerated
Sealing -	IP56

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