

argus[®] 4



The Argus[®]4-HR320 is the top of the range, high sensitivity Thermal Imaging Camera (TIC) from e2v.

The Argus[®]4-HR320 uses an uncooled high-resolution 320 x 240 pixel, Amorphous Silicon (ASi) Microbolometer Detector. It has been designed using advanced digital imaging technology for a sharper picture and provides superior performance.

The Argus[®]4-HR320 is a simple-to-operate, self-contained and robust camera, which can be used in a fully automatic mode of operation.

The Argus[®]4-HR320 has been specifically designed to help fire fighters to see in conditions of zero visibility including complete darkness, and smoke. It allows them to identify and rescue casualties, locate hot spots and the seat or spread of the fire.

The camera is also lightweight, ergonomic and capable of withstanding harsh environments.

The Argus[®]4-HR320 can be used with all the Argus[®]4 camera accessories including Truck Mounts, Transmitters and Video accessories.

No end-user maintenance is required other than recharging of batteries and post-use external cleaning with a soft cloth.

CAMERA STANDARD FEATURES

The Argus[®]4-HR320 comes with the most advanced features available in any Thermal Imaging Camera. **These include:**

Scene Colourisation - user selectable choice of colour palettes	Tri-Mode Sensitivity
Direct Temperature Measurement (DTM)	Customisable Start-up Screen
SceneSave™ Digital Image Capture - 100 image capacity	Ambient Temperature Measurement
	Digital x2 Zoom and x4 Zoom
	On-Screen Time and Date

CAMERA STANDARD ACCESSORIES

The Argus[®]4-HR320 comes with the following accessories as standard:

Handle	Neck strap
Soft carry case (Hard carry case optional)	USB connection lead for PC/ Laptop
Side straps	User manual
Remote control	Customer CD ROM
Two rechargeable battery packs	
Battery charger with mains plug (US, UK and Europe)	

CAMERA OPTIONAL ACCESSORIES

Truck Storage Mount. (Order code: P7030TSM, P7030TSMBC)	Video capture battery pack. (Order code: P7030VC)
Truck Battery Charger. (Order code: P7030TBC, P7030BCTM, P7030BCTM/TBC)	External Video output adaptor (Order code: P7030EPVA)
Video Transmitter & Receiver. (Order code: P7030RRS, P7030RKT, P7030TX)	External video output battery pack (Order code: P7030AVBP)

CAMERA ORDER CODES

Please refer to the Argus website for details.

Code	
P7130/A	Supplied in soft carry case
P7130/AN	Hard carry case option
P7109	9Hz version
P7109/N	9Hz version with hard carry case option

Customer configurable variants are available on request:
NSN: 5855-99-667-6754

WARRANTY

24-month warranty as standard (exclusions apply)
Warranty can be extended for up to an additional three years at the time of purchase (exclusions apply).

TO BOOK A DEMONSTRATION OR FIND OUT MORE GO TO:

argusdirect.com

ENVIRONMENTAL DATA

Thermal conditions	The camera has been designed to operate: <ul style="list-style-type: none"> • -10°C (-14°F) and +80°C (176°F) • withstand +150°C (300°F) for 15 minutes • withstand +260°C (500°F) for 5 minutes
Sealing	IP67, will withstand short-term 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 -10°C (14°F) and +40°C (104°F)

OPTICAL DATA

Detector	
Sensor type	Un-cooled Microbolometer
Sensor material	Amorphous Silicon (ASi)
Resolution	320 x 240 array
Pixel size	25µ
Spectral response	8 – 14µm
MDTD	45 mK typical (Minimum Discernible Temperature Difference)
Dynamic range	-40°C to 1000°C (-40°F to 1832°F) via 3 ranges with autoswitching
Refresh rate	P7130 - 60Hz
Spot temperature range	-40°C to 1000°C (-40°F to 1832°F)
Ambient temperature range	-15°C to 150°C (5°F to 300°F)
Lens	
Lens material	Germanium
Focal length	8.6mm
Focal distance	1m to infinity, optimised at 4m. (3ft to infinity, optimised at 13 ft)
Horizontal Aperture	f/1.0
Field of view	50° horizontal, 37.5° vertical
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	430cd/m2 at 20mA (High brightness, white LED)

MECHANICAL DATA

Camera dims (H x W x D)	130mm x 185mm x 185mm (5.1 x 7.2 x 7.2 inches) (nominal)
Camera weight	1.3kg (2.8lb) without battery 1.6kg (3.4lb) with battery
Outer camera case and handle	Radel®R-5100 and Santoprene®
Rear and front bumpers	Multiflex® or Santoprene®
Neck and side straps	Nomex®
Lens window	Germanium (2mm thick) with durable coating

ELECTRICAL DATA

Power consumption	<3 W typical
Start-up time	5 seconds typical
Battery type	Ni-MH Rechargeable Battery
Battery capacity	2 Ah
Battery life	4 hours @ ambient temperature (22°C, 72°F)
Battery charge time	2 hours nominal
Battery recharge cycles	500 to 80% capacity, 1000 recharges in total cycles
Battery sealing	IP67
Charging temp.	0°C to 40°C (32°F to 104°F) 65°C (150°F) can be tolerated
Charger input voltage	100V – 240VAC, 50/60 Hz, 1A max
Charger operating temp.	0°C to 40°C (32°F to 104°F)

VIDEO OUTPUTS

Digital	MPEG4, RTSP video streaming @ (P7130 - 10 fps, P7109 - 9fps)
Analogue	NTSC 525-line 60 Hz, EIA RS-170 (P7130 - 30 fps, P7109 - 9 fps)

COMPLIANCE DATA

RFI/EMC	
Emissions	BS EN 61000-6-3:2007, FCC CFR-47 Subpart B, Class B, AUS/NZ 4251.1
Immunity	BS EN 61000-6-2:2005
Safety	IEC 60950-1 and related national standards
Vibration/Shock	EN 60721-3-2 Class 2M3
RoHS	All parts of the system are compliant with EU directive 2011/65/EC

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