## SAFETY AND INNOVATION

# **argus** thermal imaging from e2v





The Argus<sup>®</sup> P-Type thermal imaging camera is specially designed to help police, security and law enforcement officers detect the heat signatures of people and objects.

The Argus<sup>®</sup> P-Type can be used in conditions of zero visibility including complete darkness and smoke. This is because the energy being sensed is heat rather than light allowing the camera to be used in both day and night operations and for many different applications.

The Argus<sup>®</sup> P-Type is a robust, self-contained, simpleto-operate thermal imaging camera with interchangeable lenses allowing the camera to be used effectively for differing operational distances. It is lightweight and ergonomic, capable of withstanding harsh environments and contains many of the most advanced features available for any thermal imaging camera.

The Argus<sup>®</sup> P-Type is available with a 320 x 240 pixel Amorphous Silicon (ASi) Microbolometer Detector. The camera has been designed using advanced digital imaging technology and techniques for superior performance and application specific functionality

## **CAMERA STANDARD FEATURES**

The Argus® P Type comes with the most advanced features available in any Thermal Imaging Camera. **These include:** 

Interchangeable Lenses	Choice of additional colour	
Shuttered OLED Display		
Digital Image Capture 1000 imates	Time and Date	
Digital Video Capture	Digital Zoom	
Image/Video Replay	On Screen Set-up Menu	
Fast 5 second power-up. standby mode not required		

Up to 5 hours Battery Life

## **CAMERA STANDARD ACCESSORIES**

The Argus® P Type comes with the following accessories as standard:

Quick Start Guide	Video Output Cable
User Manual	4GB Memory Card
Rechargeable Battery Pack	USB Cable
Mains Charger	Neck Strap
In-Car Charging Cable	Lens Cloth
Mains Charger In-Car Charging Cable	Neck Strap

## **CAMERA OPTIONAL ACCESSORIES**

Black Hard Case - ARG_P_BHC	Additional
Argus Soft Case - ARG_TTP_SC	- ARG_TT

Additional Li-ion battery
- ARG\_TTP\_BP

Please refer to the Argus website for details.

## **CAMERA ORDER CODES**

Code	Resolution	Frame rate
PB320	320x240	30Hz
PB329	320x240	9Hz

## LENSES

# Code (order separately)

ARG_PLENSB
ARG_PLENSC
ARG_PLENSD
ARG_PLENSE
ARG_PLENSF

TO BOOK A DEMONSTRATION OR FIND OUT MORE GO TO:

argusdirect.com



## PERFORMANCE

Lens	Field of View (Horizontal) 320 x 240 sensor	
В	50°	Identification approx 24m Recognition approx 90m Detection approx 230m
С	24°	Identification approx 50m Recognition approx 190m Detection approx 500m
D	13º	Identification approx 90m Recognition approx 350m Detection approx 950m
E	10°	Identification approx 115m Recognition approx 460m Detection approx 1250m
F	7°	Identification approx 165m Recognition approx 650m Detection approx 1750m

Note: Identification as friend or foe at 6.25cm/pixel. Recognition as person / object at 25cm/ pixel. Detection of person at 66.7cm/pixel.

## **OPTICAL DATA**

## Detector

Sensor type	Un-coole	ed Microbo	olometer		
Sensor material	Amorpho	ous Silicon	(ASi)		
Resolution	384 x 28	8 array (3	20 x 240)	used	
Pixel size	25µ				
Spectral response	8 – 14µn	า			
MDTD	<100 mł	K typical (N	/linimum E	iscernible	
	Tempera	ture Differe	ence)		
Dynamic range	-40°C to	150° (-40	°F to 300°	F)	
Refresh rate	60Hz				
Lens					
Lens material	Germani	um			
Туре	В	С	D	Е	F
Focal length	8.6	19	35	46	65
Aperture	f/1.0	f/1.3	f/1.2	f/1.0	f/1.3
Horz. Field of view	50°	24°	13°	10°	7°

#### Image Presentation

Туре	OLED Microdisplay
Pixel format	QVGA 320 x 240 x RGB
Pixel count	320 x 240 x 3 = 230,400 Pixels
Diopter adjustment	+2 to -4
Standard Colour Modes	White hot, Black hot
Update rate	PB320 30fps: PB329 9fps
Image Capture	JPEG or RAW format, 1000 images
Video Capture	AVI (MJPEG) format, approx 0.2GB/hr PB320 10fps; PB329 9fps

## **ELECTRICAL DATA**

### Interfaces

Power	12VDC for use with supplied mains or vehicle
	adaptor leads
Computer	Mini-USB (USB2)
	(USB Mass Storage Device)
Video Output	NTSC 525 line 60 Hz, EIA RS-170
	PB320 30 fps; PB329 9 fps
Memory Card	Compatible with MicroSD
Power	
Power	3W typical
Consumtion	
Start-up time	5 seconds typical
Battery type	Li-ion (DR5)
Battery life	Up to 5 hours
Battery recharge	4 hours approx in camera
time	3 hours approx in charger
Charging temp.	0°C to 40°C (32°F to 104°F)
Alternative Battery (option)	Lithium AA FR6 Primary x 4
Lithium AA Battery Life	Up to 5 hours
External power/ charging	100 - 240 VAC 50/60Hz or 12VDC (with vehicle adaptor)

## **MECHANICAL DATA**

Camera dims (H x W x D)	224mm x 94mm x 76mm With B or C lens and cover fitted. Excludes removeable evecup and straps
Camera weight	<0.95 kg (<2.1 lb) including battery, B or C lens, straps and cover.

#### **ENVIRONMENTAL DATA**

Operating Temperature	-20°C to +60°C (-4°F to 140°F)
Long term storage	-20°C to +60°C (camera)
	-10°C to +50°C (Li-ion battery)
Sealing	Waterproof (IP65)*
Vibration/Shock	EN 60721-3-2 Class 2M3
EMC Emissions	BS EN & AS/NZ 61000-6-3:2007
	EN 50489:2010
	FCC CFR 47 PART 15b:2010
	ICES-003(2004) (Canada)
EMC Immunity	BS EN 61000-6-2:2005
	EN 50498:2010
RoHS	Compliant
Safety	IEC 60950-1 and related national standards

\* Connector cover fitted lens fitted and battery cover closed.

#### WARRANTY

24-month warranty as standard.

Warranty can be extended for up to an additional three years at the time of purchase (exclusions apply).

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