

**P** / TYPE  
COVERT SURVEILLANCE



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, simple-to-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 either a 320 x 240 pixel or 160 x 120 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

TO BOOK A DEMONSTRATION OR FIND OUT MORE GO TO:

**argusdirect.com**

**CAMERA STANDARD FEATURES**

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

Interchangeable Lenses	Choice of Colour Modes additional colour modes optionally available
Shuttered OLED Display	Customisable Start-up Screen
Digital Image Capture 1000 images (option)	Time and Date
Digital Video Capture (option)	Digital Zoom
Image/Video Replay (option)	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<sup>®</sup> 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

**CAMERA OPTIONAL ACCESSORIES**

Security Application Colour Modes - ARG_TTP_AM_F	Image and Video Capture - ARG_TTP_IV
Sport Application Colour Modes - ARG_TTP_AM_S	Black Hard Case - ARG_P_BHC
Specialist Application Colour Modes - ARG_TTP_AM_SS	Argus Soft Case - ARG_TTP_SC
Marine Application Colour Modes - ARG_TTP_AM_M	Additional Li-ion battery - ARG_TTP_BP
	Please refer to the Argus website for details.

**CAMERA ORDER CODES**

Code	Resolution	Frame rate
PB160	160x120	30Hz
PB169	160x120	9Hz
PB320	320x240	30Hz
PB329	320x240	9Hz

**LENSES**

**Code (order separately)**

ARG_PLENSB
ARG_PLENSC
ARG_PLENSD
ARG_PLENSE
ARG_PLENSF

**PERFORMANCE**

Lens	Field of View (Horizontal) 160 x 120 sensor	Field of View (Horizontal) 320 x 240 sensor	
B	26°	50°	Identification approx 24m Recognition approx 90m Detection approx 230m
C	12°	24°	Identification approx 50m Recognition approx 190m Detection approx 500m
D	6.5°	13°	Identification approx 90m Recognition approx 350m Detection approx 950m
E	5°	10°	Identification approx 115m Recognition approx 460m Detection approx 1250m
F	3.5°	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**

<b>Sensor type</b>	Un-cooled Microbolometer
<b>Sensor material</b>	Amorphous Silicon (ASi)
<b>Resolution</b>	384 x 288 array (320 x 240) used or 160 x 120
<b>Pixel size</b>	25µ
<b>Spectral response</b>	8 – 14µm
<b>MDTD</b>	<100 mK typical (Minimum Discernible Temperature Difference)
<b>Dynamic range</b>	-40°C to 150° (-40°F to 300°F)
<b>Refresh rate</b>	60Hz (PB320), 120 Hz (PB160)

**Lens**

<b>Lens material</b>	Germanium				
<b>Type</b>	B	C	D	E	F
<b>Focal length</b>	8.6	19	35	46	65
<b>Aperture</b>	f/1.0	f/1.3	f/1.2	f/1.0	f/1.3
<b>Horz. Field of view PB160</b>	26°	12°	6.5°	5°	3.5°
<b>Horz. Field of view PB320</b>	50°	24°	13°	10°	7°

**Image Presentation**

<b>Type</b>	OLED Microdisplay
<b>Pixel format</b>	QVGA 320 x 240 x RGB
<b>Pixel count</b>	320 x 240 x 3 = 230,400 Pixels
<b>Diopter adjustment</b>	+2 to -4
<b>Standard Colour Modes</b>	White hot, Black hot
<b>Update rate</b>	PB160/320 30fps; PB169/329 9fps
<b>Image Capture</b>	JPEG or RAW format, 1000 images
<b>Video Capture</b>	AVI (MJPEG) format, approx 0.2GB/hr PB160/320 10fps; PB169/329 9fps

**ELECTRICAL DATA**

**Interfaces**

<b>Power</b>	12VDC for use with supplied mains or vehicle adaptor leads
<b>Computer</b>	Mini-USB (USB2) (USB Mass Storage Device)
<b>Video Output</b>	NTSC 525 line 60 Hz, EIA RS-170 PB160/320 30 fps; PB169/329 9 fps
<b>Memory Card</b>	Compatible with MicroSD
<b>Power Power Consumption</b>	3W typical
<b>Start-up time</b>	5 seconds typical
<b>Battery type</b>	Li-ion (DR5)
<b>Battery life</b>	Up to 5 hours
<b>Battery recharge time</b>	4 hours approx in camera 3 hours approx in charger
<b>Charging temp.</b>	0°C to 40°C (32°F to 104°F)
<b>Alternative Battery (option)</b>	Lithium AA FR6 Primary x 4
<b>Lithium AA Battery Life</b>	Up to 5 hours
<b>External power/charging</b>	100 - 240 VAC 50/60Hz or 12VDC (with vehicle adaptor)

**MECHANICAL DATA**

<b>Camera dims (H x W x D)</b>	232mm x 93mm x 77mm With B or C lens and cover fitted. Excludes removeable eyecup and straps
<b>Camera weight</b>	<0.95 kg (<2.1 lb) including battery, B or C lens, straps and cover.

**ENVIRONMENTAL DATA**

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