

# AERON RANGER

## UNCOOLED LWIR THERMAL ZOOM LENS OPTIONS:

15mm to 100mm

26mm to 105mm

25mm to 150mm



Above: Aeron Ranger 25-150mm.  
Other models will vary.

The Aeron Ranger is an accurate, rugged, continuous rotation dual sensor PTZ camera utilising an uncooled LWIR thermal sensor with a range of zoom lenses up to 150mm and a HD visible sensor.

These camera sensors are housed within the Aeron's rugged enclosure, which also provides fast and accurate camera positioning. Tested to an IP67 level of environmental protection and hard anodised, the Aeron can be used in the most harsh and challenging applications such as maritime, border security and vehicle mount installations.

## KEY FEATURES

- Thermal camera detection\* ranges up to 3.29km (human) and 10.1km (vehicle)
- Uncooled LWIR thermal sensors with zoom lens options up to 150mm
- 30x zoom HD visible sensor with a wiper as standard
- 360° continuous rotation with pan and tilt speeds up to 160° per second
- High levels of camera positioning accuracy: 0.01°
- Absolute feedback, virtually zero backlash with automatic self position correction
- Compact and ruggedised for extreme and marine environments
- IP67 rating
- Mounting options include inverted, upright or inclined
- Suitable for mobile and vehicle mounted applications



### FLEXIBLE MOUNTING

Options include inverted, upright, or inclined



### WIPER AS STANDARD

The visible HD camera comes with a wiper as standard



### 360° ROTATION

The Aeron Ranger offers continuous 360° rotation

\* Johnsons Criteria,  
(Human at 1.8m x 0.5m, vehicle at 2.3m<sup>2</sup>, Detection at 2 pixels, Recognition at 8 pixels and Identification at 13 pixels. 50% probability subject to environmental conditions)



# AERON RANGER

UNCOOLED LWIR THERMAL ZOOM LENS CAMERAS



Above: Aeron Ranger 25-150mm.  
Other models will vary.

## THERMAL SENSOR – 640 x 480, 17µm PIXEL PITCH

Part Number	RANGER-100	RANGER-105	RANGER 25-150
Focal Length	15 to 100mm	26 to 105mm	25 to 150mm
Horizontal FOV	42.2° (W) - 6.2° (T)	25.3° (W) - 5.9° (T)	25.4° (W) - 4.1° (T)
Optical Zoom	6.6x, motorised	4x, motorised	6x, motorised
F Number	F1.4	F1.6	F1.4
Sensitivity	<50 mK (NETD) f/1.0 at room temperature		
Detector Type	Uncooled VOx microbolometer		
Resolution	640 x 480, 17µm		
Spectral Band	8 to 14 µm (LWIR)		
Frequency	25Hz (9Hz, 30Hz options)		
Focus	Manual (push autofocus cost option)		
Digital Zoom	4x digital zoom (8x optional)		
Image Stabilisation	Yes, electronic (cost option)		
Image Processing	Polarity control, tunable contrast enhancement		

## HD VISIBLE SENSOR

Focal Length	4.3mm to 129mm
Image Sensor	1/2.8" CMOS Exmor (2.13MP), full HD 1080p (1920 x 1080)
F-Number	F1.6 to F4.7
Horizontal FOV	63.7° (W) to 2.32° (T)
Optical Zoom	30x
Digital Zoom	12x
Focus	Automatic, manual
Min. Sensitivity	Colour 0.01 lux, mono 0.0008 lux (high sensitivity mode)
Other Features	De-fog, digital noise reduction, WDR, image stabilisation, boresight adjustment

## AERON PAN AND TILT UNIT

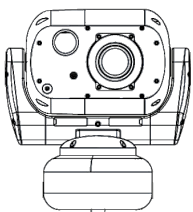
Pan Range; Pan Velocity	360° continuous; 0.01° to 160° per second
Tilt Range; Tilt Velocity	-30° to +90°; 0.01° to 160° per second (upright) -90° to +30°; 0.01° to 160° per second (inverted) -68° to +90°; 0.01° to 160° per second (inclined)
Accuracy	0.01° / 0.17 mRad
Repeatability	0.05° / 0.87 mRad
Actuation	Custom stepper motors

## PART CODES

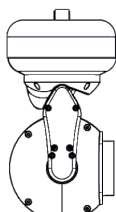
RC4-511YJ30X-DB15Z100FW	Aeron Ranger 100, IP, 640x480, 17µm, 25Hz thermal camera with a 15mm-100mm, F1.4 thermal zoom lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera
RC4-511YJ30X-DB26Z105FW	Aeron Ranger 105, IP, 640x480, 17µm, 25Hz thermal camera with a 26mm-105mm, F1.6 thermal zoom lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera
RC4-511YJ30X-DB25Z150FW	Aeron Ranger 25-150, IP, 640x480, 17µm, 25Hz thermal camera with a 25mm-150mm, F1.4 thermal zoom lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera

Options All optional features, modules, cable and ancillary part numbers are available upon request

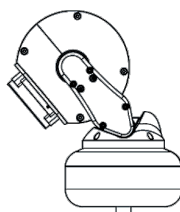
## TYPICAL AERON COMPACT PTZ CAMERA



[Upright]

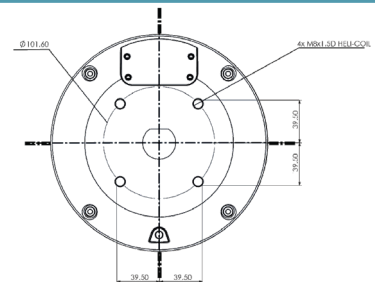


[Inverted]



[Inclined]

Aeron Fixing Points  
(base of the Aeron with an industry standard  
4" PCD mount)



## IMAGE PRESENTATION

Video Output	IP, ONVIF, RTSP (Composite (PAL / NTSC) and HD-SDI are cost options)
Video over IP	Integrated IP encoders provide simultaneous h.264 RSTP (h.265 optional) and ONVIF Profile-S

## TELEMETRY

Presets	127x Preset positions, 16x preset tours
Protocols	Pelco D, Pelco D Extended, ONVIF Profile-S
Interface	RS485, ONVIF Profile-S, Serial <> IP
Positioning	Absolute positioning feedback

## INTERFACES

Ethernet	Command and control of all functions incl. streaming of H.264 Video (ONVIF)
RS485	Command and control of all functions and firmware upgrade

## ELECTRICAL AND MECHANICAL

Input Voltage	Nominal 28VDC (24-32VDC)
Power Consumption (Typical)	Typical: 60W, peak: 100W (with heater)
Housing Material	Anodised aluminium, white powder marine grade paint finish (other colours are available upon request)
Camera Weight (Typical)	10.6kg / 23.3lb
Camera Turning Diameter (Typical)	340mm / 13.40" normal - 370mm / 14.57" offset
Height (Typical)	370mm / 14.57" normal - 340mm / 13.86" offset

## ENVIRONMENTAL

IP Rating	IP67
Temperature Range	-30°C (-22°F) up to 65°C (149°F) (-40°C with optional heater)

## OPTIONS

Automatic Tracking	Hardware based target acquisition and tracking capability.
Stabilisation	Electronic image stabilisation (for the thermal)
GYRO	2-AXIS GYRO stabilisation
4K Visible Camera	4K colour camera, 4.4-88.4mm Lens, 20x optical zoom, 12x digital zoom, colour 0.4 lux; colour 0.06 lux (slow shutter on). Replaces HD visible camera
Storage	Up to 64GB in total via SD/MMC (32GB available per channel if using thermal and video / 2x cameras)

\* Illustrations are indicative and subject to the final configuration/model.

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Specifications may be subject to change without notice.  
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**SILENT SENTINEL**  
VISION & MOTION CONTROL