## 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 2.3m², 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 c	ontrol, tunable contrast enh	ancement

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 160.0° per second	
Tilt Range; Tilt Velocity	-30° to +90°; 0.01° to 160.0° per second (upright) -90° to +30°; 0.01° to 160.0° per second (inverted) -68° to +90°; 0.01° to 160.0° per second (inclined)	
Accuracy	0.01° / 0.17 mRad	
Repeatability	0.05° / 0.87 mRad	
Actuation	Custom stepper motors	

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: 60W, peak: 100W (with heater)	
Housing Material	Anodised aluminium, white powder marine grade paint finish (other colours are available upon request)	
Camera Weight	10.6kg / 23.3lb	
Camera Turning Diameter	340mm / 13.40" normal - 370mm / 14.57" offset	
Height	370mm / 14.57" normal - 340mm / 13.86" offset	
END ADONAL STATE		

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)

## **PART CODES**

RC4-51|YJ30X-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 RC4-51|YJ30X-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 RC4-51IYJ30X-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 All optional features, modules, cable and ancillary part numbers are available upon request

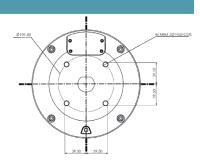
### TYPICAL AERON COMPACT PTZ CAMERA







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



Specifications may be subject to change without notice.













<sup>\*</sup> Illustrations are indicative and subject to the final configuration/model