

# AERON SEARCHER

COOLED MWIR THERMAL ZOOM LENS :  
15mm to 300mm



Above: Aeron Searcher 15-300mm with gyro stabiliser. Other models will vary.

The Aeron Searcher is an accurate, rugged, continuous rotation dual sensor PTZ camera utilising a cooled MWIR thermal sensor with a zoom lenses up to 300mm 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 10.97km (human) and 20.1km (vehicle)
- Cooled MWIR 15µm, 25mK thermal sensors with zoom lens up to 300mm
- Image stabilisation and push autofocus as standard
- 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



### WIPER AS STANDARD

The HD visible sensor features the wiper as standard



### COOLED SENSORS

Allows long range performance from a compact PTZ



### 360° ROTATION

The Aeron Searcher offers continuous 360° rotation

\* Ranges are based upon 50% probability on a MODTRAN standard atmosphere. Detailed NVIPM calculation notes available upon request.

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## COOLED MWIR THERMAL ZOOM LENS CAMERAS



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### THERMAL SENSOR – 640 x 512, 15µm PIXEL PITCH

<b>Part Number</b>	<b>SEARCHER-300</b>
Focal Length	15 to 300mm
Field of View	35.5° (W) to 1.83° (T)
Optical Zoom	20x, motorised
F Number	F4.0
Cooler MTBF	20,000 hours
Detector Type	Cooled T2SL HOT; Stirling cycle, cool down time <10 Minutes, 6 minutes typical
Sensitivity	<25 mK (NETD) at room temperature
Resolution	640 x 512, 15µm
Spectral Band	3.6 to 4.5µm (MWIR)
Frequency	60Hz
Focus	Push auto focus and manual focus
Digital Zoom	4x digital zoom
Image Stabilisation	Yes, electronic
Image Processing	Linear AGC, CLAHE, LAP, noise reduction, sharpen, alpha-blend. Palettes: Black-hot, white-hot, rainbow etc.

### 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

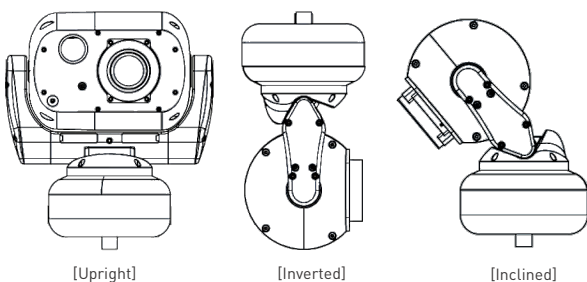
### AERON PAN & TILT UNIT

Pan Range;	360° continuous; 0.01° to 160.0° per second
Pan Velocity	
Tilt Range;	-30° to +90°; 0.01° to 160.0° per second (upright)
Tilt Velocity	-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

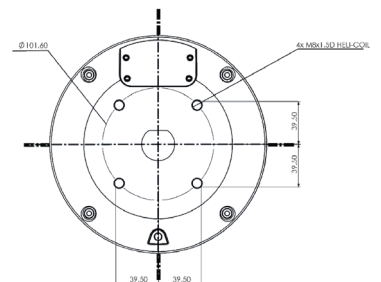
### PART CODES

RC4-51YJ30X-IHB15Z300FW	Aeron Searcher 300, IP, 640x512, 15µm, 60Hz thermal camera with a 15-300mm, F4.0 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\*



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



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

### 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

### 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.
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)