



# AERON EVO2

## UNCOOLED LWIR THERMAL FIXED AND ZOOM LENS OPTIONS:

50mm 25 to 75mm  
65mm 26 to 105mm  
100mm



Above: Aeron EVO2 26-105mm.  
Other models will vary.

The EVO2 range utilises the very latest in both thermal core and lens technology, providing advanced detection capabilities in the most extreme conditions. Available with either zoomable or fixed FOV lenses, the Aeron EVO2 range also benefits from a choice of two thermal sensor resolutions; **640 x 512 (12µm)** and **XGA 1024 x 768 (14µm)**.

The Aeron EVO2 is an accurate, rugged, continuous rotation dual sensor PTZ camera utilising an uncooled LWIR thermal sensor with a range of fixed lenses (up to 100mm), zoom lenses (up to 105mm), and a HD visible sensor.

The 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 detection\* ranges up to 3.2km (human) and 10km (vehicle)
- Uncooled LWIR thermal sensors:
  - Fixed lens options up to 100mm
  - Zoom lens options up to 26-105mm
- Range of resolutions up to 1024 x 768 (XGA)
- Pixel pitch down to 12µm (improves range by up to 20%)
- Push autofocus as standard on selected thermal zoom lenses
- 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 EVO2 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). Based on RC4-51YJ30X-CDB26Z105FW.

**WWW.SILENTSENTINEL.COM**  
**+44 (0) 1920 871 734**



UK Manufacturer

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VISION & MOTION CONTROL



# AERON EVO2

## UNCOOLED LWIR THERMAL FIXED / ZOOM LENS CAMERAS



Above: Aeron EVO2 26-105mm.  
Other models will vary.

### THERMAL IMAGER – 640 x 512, 12µm PIXEL PITCH

| Part Number              | RC4-51IYJ30X-EDB08FW            | RC4-51IYJ30X-EDB06FW | RC4-51IYJ30X-EDB04FW | RC4-51IYJ30X-EDB25Z75FW      | RC4-51IYJ30X-EDB26Z105FW      |
|--------------------------|---------------------------------|----------------------|----------------------|------------------------------|-------------------------------|
| Focal Length             | 50mm                            | 65mm                 | 100mm                | 25 to 75mm (3x optical zoom) | 26 to 105mm (4x optical zoom) |
| Horizontal Field of View | 8.8°                            | 6.7°                 | 4.4°                 | 17.6° (W) to 5.9° (T)        | 16.9° (W) to 4.2° (T)         |
| F Number                 | F1.0                            | F1.2                 | F1.6                 | F1.2                         | F1.6                          |
| Focus                    | Fixed<br>Push autofocus, manual |                      |                      |                              |                               |

### THERMAL IMAGER – 1024 x 768, 14µm PIXEL PITCH

| Part Number              | RC4-51IYJ30X-EDC16FW                      | RC4-51IYJ30X-EDC12FW | RC4-51IYJ30X-EDC08FW | RC4-51IYJ30X-EDC25Z75FW      | RC4-51IYJ30X-EDC26Z105FW      |
|--------------------------|-------------------------------------------|----------------------|----------------------|------------------------------|-------------------------------|
| Focal Length             | 50mm                                      | 65mm                 | 100mm                | 25 to 75mm (3x optical zoom) | 26 to 105mm (4x optical zoom) |
| Horizontal Field of View | 16.4°                                     | 12.6°                | 8.2°                 | 32.8° (W) to 10.9° (T)       | 31.6° (W) to 7.8° (T)         |
| F Number                 | F1.2                                      | F1.2                 | F1.6                 | F1.2                         | F1.6                          |
| Focus                    | Fixed<br>Push autofocus, manual<br>Manual |                      |                      |                              |                               |

### THERMAL SENSOR SPECIFICATION

|                     |                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------|
| Sensitivity         | ≤50mK at 25°C, F1.0                                                                               |
| Detector Type       | Uncooled VOx microbolometer                                                                       |
| Spectral Band       | 7.5 to 14µm (LWIR / 8 to 14µm)                                                                    |
| Frequency           | 50Hz                                                                                              |
| Digital Zoom        | 1.0x to 8.0x digital zoom (step 0.1)                                                              |
| Image Stabilisation | Yes, electronic (cost option)                                                                     |
| Image Processing    | Non-Uniform Correction (NUC), noise filtering, polarity control, Digital Detail Enhancement (DDE) |
| Image Control       | Polarity: White hot / black hot. Orientation: Invert / revert                                     |

### 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)<br>-90° to +30°; 0.01° to 160.0° per second (inverted)<br>-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                                                                                                                                            |
| Interfaces                | Ethernet (control + video), RS485 (control and firmware upgrade)                                                                                                 |

### PART CODES

|                          |                                                                                                                                                                                |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RC4-51IYJ30X-EDB08FW     | Aeron EVO2 with a 640x512, 12µm, 50Hz thermal camera and a 50mm, F1.0 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour               |
| RC4-51IYJ30X-EDB06FW     | Aeron EVO2 with a 640x512, 12µm, 50Hz thermal camera and a 65mm, F1.2 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour               |
| RC4-51IYJ30X-EDB04FW     | Aeron EVO2 with a 640x512, 12µm, 50Hz thermal camera and a 100mm, F1.6 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour              |
| RC4-51IYJ30X-EDB25Z75FW  | Aeron EVO2 with a 640x512, 12µm, 50Hz thermal camera and a 25-75mm, autofocus, F1.2 thermal zoom lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour  |
| RC4-51IYJ30X-EDB26Z105FW | Aeron EVO2 with a 640x512, 12µm, 50Hz thermal camera and a 26-105mm, autofocus, F1.6 thermal zoom lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour |
| RC4-51IYJ30X-EDC16FW     | Aeron EVO2 with a 1024x768, 14µm, 50Hz thermal camera and a 50mm, F1.2 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour              |
| RC4-51IYJ30X-EDC12FW     | Aeron EVO2 with a 1024x768, 14µm, 50Hz thermal camera and a 65mm, F1.2 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour              |
| RC4-51IYJ30X-EDC08FW     | Aeron EVO2 with a 1024x768, 14µm, 50Hz thermal camera and a 100mm, F1.6 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour             |
| RC4-51IYJ30X-EDC25Z75FW  | Aeron EVO2 with a 1024x768, 14µm, 50Hz thermal camera and a 25-75mm, autofocus, F1.2 thermal zoom lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour |
| RC4-51IYJ30X-EDC26Z105FW | Aeron EVO2 with a 1024x768, 14µm, 50Hz thermal camera and a 26-105mm, F1.6 thermal zoom lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour           |
| Options                  | All optional features, modules, cable and ancillary part numbers are available upon request                                                                                    |

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