

Aeron EVO2

55 MM

25 TO 75 MM

26 TO 105 MM

25 TO 150 MM

The Aeron EVO2 is an advanced, continuous rotation dual-sensor PTZ camera system designed for high-performance surveillance in the most challenging environments. The camera features an uncooled LWIR thermal sensor with a 640 x 512 resolution and a 30x optical zoom HD visible camera that includes a standard wiper. The system offers 360° continuous rotation with fast speeds up to 160° per second, providing precise positioning rated at 0.01°. Housed in a compact, hard-anodized enclosure, the camera is tested to an IP67 environmental protection level, making it durable and suitable for a variety of stationary and mobile applications, including maritime, border security, and vehicle-mounted installations.



Features

DUAL-SENSOR SYSTEM

Integrated pan-tilt-zoom (PTZ) system with an uncooled long-wave infrared (LWIR) thermal sensor and a visible high-definition (HD) camera.

VERSATILE LENS OPTIONS

Offers a choice of fixed thermal lens options up to 75 mm and zoom thermal lens options up to 25-150 mm.

RUGGED AND DURABLE DESIGN

Housed in a compact, hard-anodized enclosure, the camera is tested to an IP67 environmental protection level for use in extreme and marine conditions.

MOBILE READY

Suitable for a variety of mobile applications, including maritime, border security, and vehicle-mounted installations.

HIGH RESOLUTION IMAGING

The thermal sensor delivers a resolution of 640 x 512 with a 12µm pixel pitch, which ensures clear and detailed thermal images.

OPTICAL ZOOM

The high-definition (HD) visible camera features a powerful 30x optical zoom and includes a wiper as a standard feature.

PRECISION AND SPEED

Features 360° continuous rotation with fast pan and tilt speeds up to 160° per second, offering highly accurate positioning with a precision of 0.01°.

Specifications

Thermal Imager - 640 x 512, 12µm Pixel Pitch

| Part Number | RC4- 511YJ30X- FB08FW | RC4-511YJ30X-FB25Z75FW | RC4-511YJ30X-FB26Z105FW | RC4- 511YJ30X-FB25Z150FW |
|--------------------------|-----------------------|------------------------------|-------------------------------|-------------------------------|
| Focal Length | 55mm | 25 to 75mm (3x optical zoom) | 26 to 105mm (4x optical zoom) | 25 to 150mm (6x optical zoom) |
| Horizontal Field of View | 8.0° | 17.6° (W) to 5.9° (T) | 16.9° (W) to 4.2° (T) | 17.6° (W) to 2.9° (T) |
| F Number | F1.0 | F1.2 | F1.6 | F1.4 |
| Focus | Fixed | Push autofocus, manual | Push autofocus, manual | Push autofocus, manual |

Thermal DRI

Human DRI

| Focal Length | Detection | Recognition | Identification |
|--------------|-----------|-------------|----------------|
| 55 mm | 1707 m | 427 m | 263 m |
| 25-75 mm | 2382 m | 582 m | 358 m |
| 26-105 mm | 3259 m | 815 m | 501 m |
| 25-150 mm | 4656 m | 1164 m | 716 m |

Vehicle DRI

| Focal Length | Detection | Recognition | Identification |
|--------------|-----------|-------------|----------------|
| 55 mm | 5271 m | 1318 m | 811 m |
| 25-75 mm | 7188 m | 1797 m | 1106 m |
| 26-105 mm | 10063 m | 2516 m | 1548 m |
| 25-150 mm | 14375 m | 3594 m | 2212 m |

Visual Camera DORI

| | Detect 25 ppm | Observe 63 ppm | Recognise 125 ppm | Identify 250 ppm |
|---------------------|---------------|----------------|-------------------|------------------|
| Standard 4.3-129 mm | 1896 m | 753 m | 379 m | 190 m |

*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).

Thermal Sensor

| | |
|------------------|---|
| Sensitivity | ≤20mK at 20°C, F1.0 |
| Detector Type | Uncooled VOx microbolometer |
| Spectral Band | 7.5 to 14µm (LWIR / 8 to 14µm) |
| Frequency | 60Hz (640 x 512 imager only) |
| Digital Zoom | 1x to 4x (0.1 steps) (1024 x 786 imager only) 1x to 8x (0.1 steps) (640 x 512 imager only) |
| Image Processing | Non-Uniform Correction (NUC), noise filtering, polarity control, Digital Detail Enhancement (DDE) |
| Image Control | Polarity: White hot / black hot (10x colour palettes) Orientation: Invert / revert |

HD Visible Sensor

| | |
|------------------|---|
| Focal Length | 4.3 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 |
| Interfaces | Ethernet (control + video), RS485 (control and firmware upgrade), Analog |

Image Presentation

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|---------------|---|
| Video Output | IP, ONVIF, RTSP, Analog {Composite (PAL / NTSC) and HD-SDI are cost options} |
| Video over IP | Integrated IP encoders provide simultaneous H.264 RTSP and ONVIF Profile-S |

Telemetry

| | |
|-----------|--|
| Presets | 256x Preset positions, 8x preset tours |
| Protocols | Pelco D, Pelco D Extended, ONVIF Profile-S |
| Interface | RS485, ONVIF Profile-S, IP <> Serial |

Electrical and Mechanical

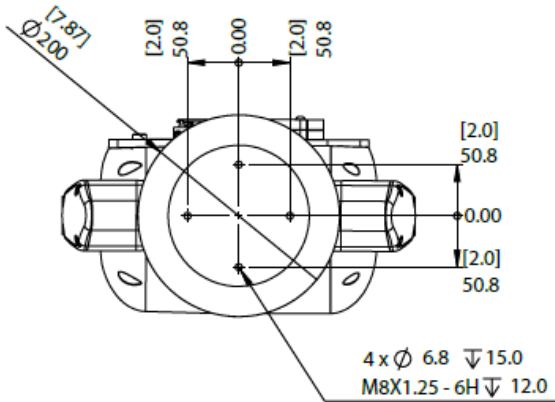
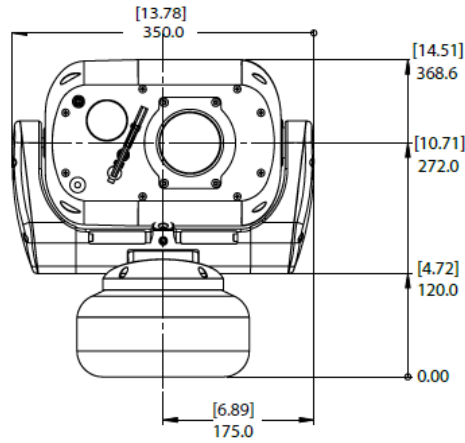
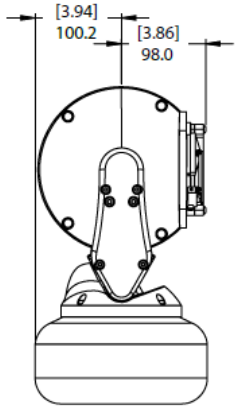
| | |
|-----------------------------------|--|
| Input Voltage | Nominal 22-30VDC (14-26VAC) |
| Power Consumption (Typical) | Typical: 60W |
| Housing Material | Anodised aluminium, white powder marine grade paint finish (other colours are available upon request) |
| Camera Weight (Typical) | 10.6kg / 23.3lb |
| Camera Turning Diameter (Typical) | 340mm / 13.40" Normal - 370mm / 14.57" offset |
| Height (Typical) | 370mm / 14.57" Normal - 340mm / 13.86" offset |
| Core Modules | Visible sensor boresight, wiper |

Environmental

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|-------------------|--|
| IP Rating | IP67 |
| Temperature Range | -20°C(-4°F) up to to 65°C (149°F) (-30°C (-22°F) with optional heater) |

Outline Dimensions

| | |
|-------|--------|
| [X.X] | INCHES |
| X | MM |



Note: Typical drawings- dimensions may vary by model. Further detailed drawings available on request

Ordering Information

Accessories

Part Codes

| | |
|--------------|---|
| P300-GAL-KIT | Galvanic mount kit for P300 mount |
| RC4-SPC-W | Aeron sun shield, white colour |
| RC-WAA4 | Aeron stainless steel replacement wiper (marine) |
| RC-HEATER | Aeron extended heater |
| RC-PCC-X | Aeron custom paint colour (change the W at the end of the camera / accessory part code to X) |
| P300-PM160W | PT Platform single height pole mount adaptor, white colour |
| RC-PSB1-N | Power supply unit for IP camera |
| RDK-01 | Ready to deploy kit; Integrated case with tripod, 5590 battery support, shore connections. Network switch to support optional gateway, mesh radios, encoders or UGS |
| CA-UCM-10 | 10meter cable for IP/analogue cameras |
| CA-UCM-05 | 5meter cable for IP/analogue cameras |
| UCM-01 | Price per metre to extend the UCM cables for IP/analogue cameras |

*Specifications may be subject to change without notice. E&OE 03/11/2022 V4.9

Camera Variants

Part Codes

| | |
|-------------------------|--|
| RC4-51IYJ30X-FB08FW | Aeron EVO2 with a 640x512, 12µm, 60Hz thermal camera and a 55mm, F1.0 thermal fixed lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour |
| RC4-51IYJ30X-FB25Z75FW | Aeron EVO2 with a 640x512, 12µm, 60Hz 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-FB26Z105FW | Aeron EVO2 with a 640x512, 12µm, 60Hz 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-FB25Z150FW | Aeron EVO2 with a 640x512, 12µm, 60Hz thermal camera and a 25-150mm, F1.4 thermal zoom lens, and a HD, 4.3-129mm (30x optical zoom lens) video camera, white colour (current lead time: 12 months) |

Support

Learn more and find additional documentation at avigilon.compelco.com or email sales@avigilon.com, sales@avigilon.com, or support@pelco.com for specific product support.

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