

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- 51IYJ30X- FB08FW	RC4-51IYJ30X-FB25Z75FW	RC4-51IYJ30X-FB26Z105FW	RC4- 51IYJ30X-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

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

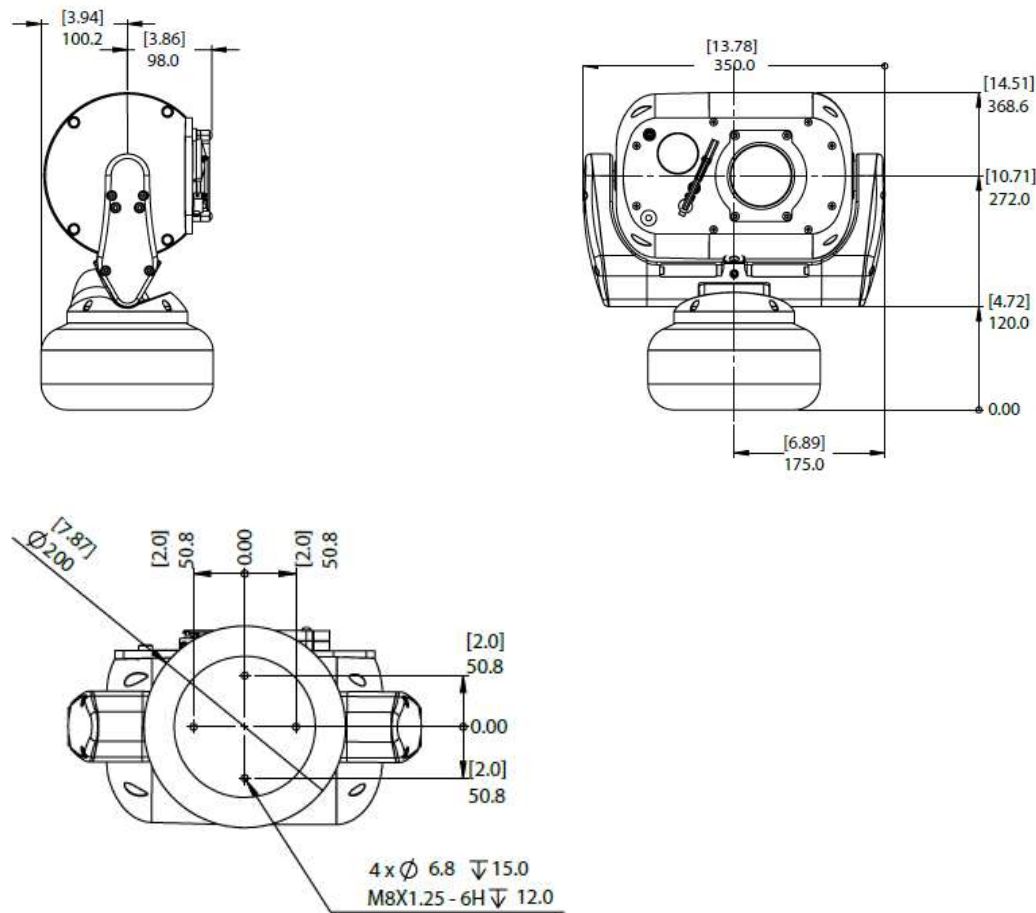
Input Voltage	Nominal 22-30VDC (14-26VAC)
Power Consumption (Typical)	Typical: 60W
Housing Material	Anodised aluminium, white powder marine grade paint finish (other colours are available upon request)
Camera Weight (Typical)	10.6kg / 23.3lb
Camera Turning Diameter (Typical)	340mm / 13.40" Normal - 370mm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

Environmental

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.comsales@avigilon.comsupport@pelco.com for specific product support.

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