

Aeron 4k Ultra Low Light

Rugged pan/tilt camera with 4K, HD video and thermal

The Aeron 4k IP camera platform is the perfect solution for long range surveillance applications, providing the best high resolution low light performance available within a marine grade rugged pan and tilt housing of this size.

The Aeron 4k employs the latest Sony ultra-low light 4k technologies which is offered with simultaneous HD 30:1 zoom video module for verification or fixed thermal cameras for confirmation at night time.

The Aeron is fully housed within a hard anodised aluminium casing, fully rated to IP67 and ready to handle the harshest environments. The toughened, optically flat glass provides clear images, even at the highest zoom levels. Optical encoders for both the pan and tilt axes provide highly accurate positioning and repeatability, allied with self-correction.

Key features:

- 12 Megapixel, 4K, 35mm Exmor CMOS Sensor
- Ultra-high sensitivity: Minimum illumination 0.0004lux @ 30 IRE
- Unique image processing engine achieves extremely high sensitivity and low noise at the same time
- 4K or full HD 30fps smooth colour video in near pitch-black conditions
- 4K (3840 x 2160) H.264 with dynamic or static regions of interest coding for bandwidth and storage efficiencies
- Secondary HD 30:1 zoom video (with wiper) and thermal cameras
- Optical encoders providing positional feedback
- IP67 environmental protection (IP68 option)
- Preset tours and privacy masking
- Optically correct windows
- IP and ONVIF Profile S compliant
- Image fusion option available
- Gyro stabilisation option available



Actual footage from camera phone



Same footage on 4k Ultra Low Light

The Silent Sentinel Range

Silent Sentinel offer an extensive range of camera and lens configurations to meet your exact surveillance requirements.

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www.silentsentinel.com

4K

Specifications may be subject to change without notice

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SILENT SENTINEL
VISION & MOTION CONTROL

OCULUS AERON OSIRIS JAEGAR

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4K Camera Specification

Image sensor	35mm full frame Exmor CMOS sensor
Number of effective pixels	Approx. 12.2 Megapixels
Lens	35mm, F1.4
Horizontal angle of view	55°
Minimum illumination (50IRE)	0.0006lux (ISO409.600 1/30s F1.2)
Minimum illumination (30IRE)	0.0004lux (ISO409.600 1/30s F1.2)
Dynamic range	Equivalent to 100dB with view-DR technology
Gain	Auto/manual (0dB to +72dB)
Shutter speed	1/1s to 1/10,000s
Exposure control	Exposure compensation, AGC, shutter speed, Iris
White balance	ATW, ATW-PRO, Fluorescent lamp, Mercury lamp, Sodium Vapour lamp, Metal halide lamp, White LED, One push WB, Manual, Indoor, Outdoor
Zoom ratio	Clear image digital zoom 2x

4K Camera Features

Day/night	No / Colour
Defog image processing	Yes
Highlight compensation	Yes
Flicker reduction	Yes
Distortion correction	Yes
Noise reduction	XDNR Technology
Image stabiliser	No
Privacy masking (number)	24

4K Camera Video Specification

Resolution	4240 x 2832, 3840 x 2160, 2880 x 2160, 1920 x 1080, 1440 x 1080, 1440 x 960, 1280 x 720, 920 x 720, 640 x 480, 640 x 360, 320 x 240, 320 x 180
Compression format	H.264 (High/Main profile). JPEG H.264 [B-picture] is supported for 3840 x 2160 and 2880 x 2160 resolution
Maximum frame rate	H264: 30 fps (3840 x 2160) JPEG: 2.5 fps (4240 x 2832)
Bitrate control mode	CBR/VBR (selectable)
Range of bitrate setting	64kbps to 32 Mbps
Multi streaming capability	Yes (5)
Number of clients	20

Uncooled Thermal Cameras			HD Video Camera	
Thermal Lens Option (FOV)	44° - 14mm, f1.2 25° - 25mm, f1.2 12° - 50mm, f1.2		Optical zoom	30x
Resolution/ Array Format	640x480, Hi-Res		Digital enlargement	12x (360x with optical zoom)
Sensor type	Uncooled VOx Microbolometer		Image sensors	1/2.8" Exmor CMOS Sensor
Pixel size	17u		Resolution	Approx. 2.13MP
Spectral band	8-14um		Signal system	HD: 1080p
Thermal sensitivity	<50mK		Lens (Wide to tele)	F=4.3mm to 129.0mm, F1.6 to F4.7
Frame rates	9Hz, 25Hz		Angle of View	63.7° (W) to 2.3° (T)
Image control	White hot, Black hot, Invert		Minimum Illumination (50IRE)	0.01 lux, 0.0008 lux in high sens mode
Focus	Fixed, Preset, Athermalised		Video Output	IP
Zoom	E-zoom 1-4, Region of interest		-	-
Video Output	IP or composite		-	-

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Mechanical Specifications

Camera construction	Die cast anodised aluminium with a4 stainless fittings	Stainless steel with a4 fitting
Turning diameter	340mm / 13.40" Normal - 370mm / 14.57" Off set	220mm / 8.66" Normal - 370mm / 14.57" Inverted
Height	370mm / 14.57" Normal - 340mm / 13.86" Off set	
Height with adaptor	500mm / 19.68" Normal - 470mm / 18.50" Off set	
Pan rotation limit/speed	360° continuous / 160° per second (excluding ramping)	
Tilt rotation limit/speed	+90° to -30° upright [-68° inclined] +30° to -90° inverted 160° per second (excluding ramping)	+90° to -30° upright [-68° inclined] +30° to -90° inverted 100° per second (excluding ramping)
Weight (with adaptor)	9.3kg (10.3kg) 20.70lb (22.90lb)	19kg (20kg) 41.88lb (44.1lb)
Mounting profile	Upright or inverted	
Pan/tilt bearings	Sealed for life - no maintenance required	
Motor drive	Long life toothed polypropylene belt drive, pulleys bonded to keypad shafts for minimum backlash	
Environmental rating	IP67	
Operating temperature range (ambient, dry)	-20°C to +65°C* [-40°C to +65°C* with optional heater] 4°F to +149°F* [-40°F to +149°F* with optional heater] *Refers to a white unit, black units can achieve +60°C/+140°F	-20°C to +55°C* [-40°C to +55°C* with optional heater] 4°F to +131°F* [-40°F to +131°F* with optional heater] *when using a sunshield
Mounting profile	4" PCD Mount	
Connection socket	IP67 Marine IP connector	

Electrical, Electronic and Software Specifications

Optical encoder preset accuracy	0.01°
Rotational contacts	Heavy duty slip rings for power, data, video, switching for washer
Position control	"Capable of retaining position without drift Automatic position recovery if forced away by a "non-control" intervention"
Roll around mode	Auto 180° pan spin when tilt reaches end of travel while following subjects
Configuration	Via on screen menus
Presets	127 + wash preset (repeatability 0.05°)
Tours	16 preset tours (maximum of 60 positions each), four 8 minute mimic tours
Privacy zones	Maximum of eight on-screen simultaneously (24 for the 4K only)
Communications	RS485 half duplex data comms with absolute positioning output
Supported telemetry protocols	Pelco-D, Pelco P, CBC OCP485, Forward Vision Mic1 FV300, Philips, Vicon
Power requirements	14 to 36VDC or 14 to 26VAC, 45W peak (100W with optional heater) Supplied PSU requires 230VAC. 12VDC support on some models
Additional details	In-built real time clock

Network

Protocols	IPv4, IPv6, UDP, TCP, HTTP, HTTPS, RTP, IGMP, RTSP, FTP, Telnet, ARP, DHCP, SNTP, SNMP (V1), 802.1x, DNS, DNSv6, SMTP, UPnP (SSDP), Digest Authentication (4k Camera only - SMTP (client), FTP (client), SNMP (v1, v2c, v3), TLS (v1.0))
QoS	DCSP
Multicast streaming support	Yes
Connectivity	ONVIF Profile S, Auto-MDIX
Configuration	Via web browser or configuration manager
Ethernet	10/100 Base-T, auto-sensing, half/full duplex
Ethernet connector	RJ45

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Accessories - Sold separately

To achieve a perfect field of view a range of mounts are available

Tower mount - RC-TMP-W*

4" PCD mounting points manufactured in cast aluminium and powdercoat finished, available in white, other colours available on request

Wall mount - RC-WM-W*

4" PCD mounting points manufactured in cast aluminium and powdercoat finished, available in white, other colours available on request

Swan neck mount - RC-PMG-W*

4" PCD mounting points manufactured in cast aluminium and powdercoat finished, available in white, other colours available on request

Pendant pole mount - RC-PPMW*

4" PCD mounting points manufactured in cast aluminium and powdercoat finished, available in white, other colours available on request

Corner mount - RC-CM-W*

For use with wall mount bracket. 4" PCD mounting points manufactured in cast aluminium and powdercoat finished, available in white, other colours available on request

Pole mount - RC-PMA-W*

4" PCD mounting points manufactured in cast aluminium and powdercoat finished, available in white, other colours available on request

*For black, replace 'W' with 'B'

Power cable

We supply the Aeron with one type of cable in a range of different lengths:

IP Cable - CA-UCM

For use with an IP Aeron camera
5m and 10m as standard (up to 25m).

Power supplies

To power the Aeron a power supply is needed, we can supply a premium PSU which provides a termination board for all functions, including LED indicators for fuse protection status.

IP PSU - RC-PSB1-N

For use with an IP Aeron camera.

Aeron Product Codes

RC4-IYM55W-DB44FW	Aeron, IP, 4k ultra low light video camera with a 35mm lens, and a 640x480 thermal camera with a 14mm thermal lens, white colour
RC4-IYM55W-DB25FW	DB25FW Aeron, IP, 4k ultra low light video camera with a 35mm lens, and a 640x480 thermal camera with a 25mm thermal lens, white colour
RC4-IYM55W-DB12FW	Aeron, IP, 4k ultra low light video camera with a 35mm lens, and a 640x480 thermal camera with a 50mm thermal lens, white colour
RC4-IYM55W-51IYJ30XW	Aeron, IP, 4k ultra low light video camera with a 35mm lens, and a HD video camera with optical zoom of 30x, white colour

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