

# SILENT SENTINEL PRODUCT BROCHURE

## SILENT SENTINEL

Silent Sentinel design, manufacture, and supply advanced market-leading surveillance and security systems targeted at the Security and Defence markets.

Our platforms are designed to be highly customisable and feature some of the latest electro-optical (EO) sensors. We are specialists in both cooled and uncooled, long range thermal camera platforms.

With our headquarters in the UK, we also have offices in Florida, USA and Dubai, UAE.



We pride ourselves on being a true end to end manufacturer, with in-house CAD, software, and mechanical design capabilities through to our own CNC machine company.

This brochure gives an overview of our products and offering, however, if you receive an enquiry regarding thermal cameras or other associated EO technologies get in touch with the team who will be happy to assist.

### MEASURING DRI

Thermal camera detection, recognition and identification ranges can be measured in a number of ways, the most common is using Johnsons Criteria.

Johnson's criteria is as follows:

- Detection: 2 Pixels per Metre  $(1 \pm 0.25 \text{ line pairs OR } 2 \pm 0.5 \text{ pixels})$
- Recognition: 8 Pixels per Metre (4 ± 0.8 line pairs OR 8 ± 1.6 pixels)
- Identification: 13 Pixels per Metre (6.4± 1.5 line pairs OR 13 ± 3 pixels)

Based on 50% probability of achieving the range specification differentiation given a 2°C temperature difference in good environmental conditions

It is vital to recognise that Johnson's Criteria has only a 50% probability of achieving the ranges given, and this is based on near-perfect environmental conditions. Whilst we appreciate there is a need for benchmarking and a criteria from which to compare thermal cameras, there are many factors that need to be taking into account when specifying, which is why knowledge of DRI is so important.

For instance, we know there are environmental factors that need to be considered, such as humidity, temperature, risk of fog, whether it is a land or coastal application etc. The below tables gives examples of atmospheric conditions and the frequently preferred technology.

Condition	Preferred technology
High humidity	LWIR (<2.5km), MWIR (>2.5km)
Fog	LWIR (consider SWIR)
Artic/sub-artic	LWIR
Smoke/aerosols	LWIR
High temperature targets	MWIR
Very long range	MWIR



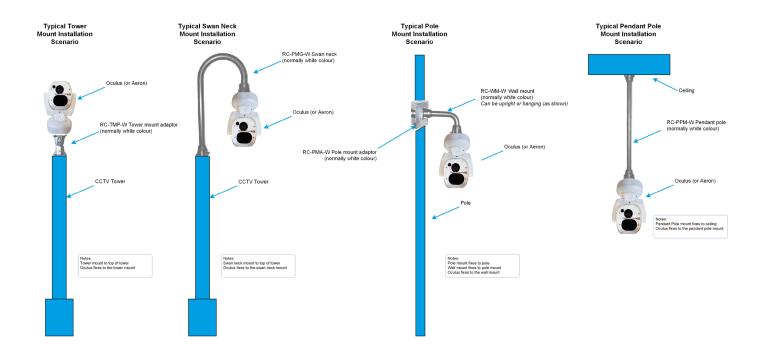
Also, Johnson's Criteria does not consider sensitivity and F numbers, which can have a big impact on cooled (MWIR) thermal cameras. Frequently, cooled thermal cameras are specified on other measures, such as MODTRAN or IPVM.

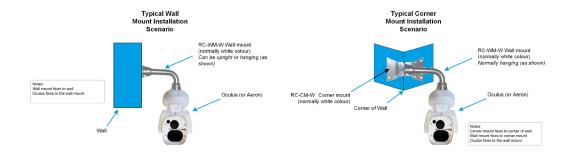
Another consideration when specifying is the F number of the thermal lens. The lower the number, the better. But most DRI calculations are based on an F1.0 lens so it is important to check the F number of the lens. In some instances, a smaller lens with a lower F number could perform better than a larger lens with a higher F number.

This brochure includes DRI ranges, however, when specifying we encourage you to use these figures as a guide and to get in touch with the team who can understand the specification and requirements better before helping you decide on the final solution.

# MOUNTS GUIDE

There are a variety of mounting options available for the Oculus and Aeron ranges. The diagrams below are designed to show what the options look like.





### **OCULUS**

#### COMPACT, RUGGED, THERMAL PTZ CAMERA



The Oculus is a compact, versatile short range thermal PTZ camera suitable for maritime, industrial, perimeter and mobile security applications.

Offering multiple mounting options, including hanging, as well as a high level of accuracy (0.05°) the Oculus is capable of fast pan and tilt speeds (up to 180° per second), and it offers 360° continuous rotation and absolute positioning.

Product Name	Details	Thermal Detection Ranges		Product Code
Oculus Scout 14mm (Uncooled LWIR)	- Fixed thermal lens (14mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 44° - F1.4 - 640 x 480 resolution	Human D: 305m R: 75m I: 50m	Vehicle D: 950m R: 240m I: 150m	RC3-51IYJ30X-DB44FW
Oculus Scout 35mm (Uncooled LWIR)	- Fixed thermal lens (35mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 17.6° - F1.2 - 640 x 480 resolution	Human D: 770m R: 190m I: 120m	Vehicle D: 2370m R: 580m I: 360m	RC3-51IYJ30X-DB18FW
Oculus Scout 50mm (Uncooled LWIR)	- Fixed thermal lens (50mm) - HD visible lens (4.3–129mm with 30x zoom) - HF0V: 12.4° - F1.2 - 640 x 480 resolution	Human D: 1100m R: 275m I: 170m	Vehicle D: 3390m R: 850m I: 520m	RC3-51IYJ30X-DB12FW
Oculus HD	- HD daylight camera only (no thermal) - 4.3-129mm lens with 30x zoom		-	RC3-50IYJ30XW
Oculus IR	- HD visible lens (4.3-129mm with 30x zoom) - Built in infra-red illumination (up to 200m)	- (	-	RC3-52IYJ30X-RAW
Oculus WL	- HD visible lens (4.3-129mm with 30x zoom) - Built in white light illumination (up to 200m)	-	-	RC3-52IYJ30X-WAW
Oculus IR/WL Hybrid	- HD visible lens (4.3-129mm with 30x zoom) - Built in white light and infra-red illumination (up to 150m)	-	-	RC3-52IYJ30X-HAW

### **AERON**

#### SHORT TO MID RANGE, RUGGED THERMAL PTZ CAMERA



Building on the success of the Oculus, the Aeron range of cameras facilitates the integration of larger format zoom and fixed thermal lens options.

The Aeron range allows for LWIR uncooled and MWIR cooled thermal technologies for longer range applications.

Product Name	Details	Thermal De	etection	Product Code
Aeron Scout 65mm (Uncooled LWIR)	- Fixed thermal lens (65mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 9.6° - F1.2 - 640 x 480 resolution	Human D: 1430m R: 360m I: 220m	<b>Vehicle</b> D: 4400m R: 1100m I: 680m	RC4-51IYJ30X-DB09FW
Aeron Scout 100mm (Uncooled LWIR)	- Fixed thermal lens (100mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 6.2° - F1.6 - 640 x 480 resolution	Human D: 2200m R: 550m I: 340m	<b>Vehicle</b> D: 6760m R: 1690m I: 1040m	RC4-51IYJ30X-DB06FW
Aeron Ranger 100mm (Uncooled LWIR)	- 6.6x zoom thermal lens (15-100mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 42.2° to 6.2° - F1.4 - 640 x 480 resolution	Human D: 2200m R: 550m I: 340m	<b>Vehicle</b> D: 6760m R: 1690m I: 1040m	RC4-51IYJ30X-DB15Z100FW
Aeron Ranger 105mm (Uncooled LWIR)	- 4x zoom thermal lens (26-105mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 25.3° to 5.9° - F1.6 - 640 x 480 resolution	Human D: 2300m R: 580m I: 360m	<b>Vehicle</b> D: 7100m R: 1780m I: 1090m	RC4-51IYJ30X-DB26Z105FW
Aeron Ranger 150mm (Uncooled LWIR)	- 6x zoom thermal lens (25-150mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 25.4° to 4.1° - F1.4 - 640 x 480 resolution	Human D: 3290m R: 830m I: 510m	<b>Vehicle</b> D: 10150m R: 2540m I: 1560m	RC4-51IYJ30X-DB25Z150FW
Aeron Ranger LR 75mm (Uncooled LWIR)	- 5x zoom thermal lens (15-75mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 28.7° to 5.9° - F1.2 - 640 x480 resolution	Human D: 3290m R: 830m I: 510m	Vehicle D: 10150m R: 2540m I: 1560m	RC4-51IYJ30X-LB15Z75FW
Aeron Searcher 275mm (Cooled MWIR)	- 14.5x zoom thermal lens (19-275mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 28.3° to 2.0° - F5.5 - 640 x 512 resolution	Human D: 8790m R: 1910m I: 1180m	<b>Vehicle</b> D: 16520m R: 7150m I: 4890m	RC4-51IYJ30X-IB19Z275FW
Aeron Searcher 300mm (Cooled MWIR)	- 20x zoom thermal lens (15-300mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 35.5° to 1.83° - F4.0 - 640 x 512 resolution	Human D: 10970m R: 2360m I: 1440m	<b>Vehicle</b> D: 20110m R: 8790m I: 5960m	RC4-51IYJ30X-IB15Z300FW
Aeron Hyperion	- Infra-red and white light hybrid illumination up to 300m - HD visible lens (4.3-129mm with 30x zoom)	-	-	RC4-52IYJ30X-HAW

### **OSIRIS**

#### MID-LONG RANGE, MODULAR PTZ CAMERA



The Osiris is a modular, highly accurate, mid to long range PTZ camera platform capable of supporting multi-sensor technologies.

With a high level of accuracy (0.002°), the Osiris features fast pan and tilt speeds (up to 45° per second) with 360° continuous rotation and absolute positioning feedback.

Product Name	Details	Thermal Detection Ranges		Product Code
Osiris PTU	Osiris pan and tilt unit	-	-	OPT-1360045W

	Product Name	Details	Thermal De Ranges	etection	Product Code
ONS	105mm RHT (Uncooled LWIR)	- 4x zoom thermal lens (26-105mm) - HFOV: 25.3° to 5.9° - F1.6 - 640 x 480 resolution	Human D: 2300m R: 580m I: 360m	<b>Vehicle</b> D: 7100m R: 1780m I: 1090m	RHT06IDB26Z105FW
OPTI(	150mm RHT (Uncooled LWIR)	- 6x zoom thermal lens (25-150mm) - HFOV: 25.4° to 4.1° - F1.4 - 640 x 480 resolution	Human D: 3290m R: 830m I: 510m	<b>Vehicle</b> D: 10150m R: 2540m I: 1560m	RHT07IDB25Z150FW
MAL	225mm RHT (Uncooled LWIR)	- 9x zoom thermal lens (25-225mm) - HFOV: 22.3° to 2.8° - F1.5 - 640 x 480 resolution	Human D: 4930m R: 1235m I: 760m	<b>Vehicle</b> D: 15220m R: 3805m I: 2340m	RHT07IDB25Z225FW
HER	150mm LR RHT (Uncooled LWIR)	- 6x zoom thermal lens (25-150mm) - HFOV: 17.5° to 3.0° - F1.4 - 640 x 480 resolution	Human D: 7760m R: 1660m I: 1020m	<b>Vehicle</b> D: 14170m R: 6180m I: 4190m	RHT07ILB25Z150FW
⊥	225mm LR RHT (Uncooled LWIR)	- 9x zoom thermal lens (25-225mm) - HFOV: 17.5° to 2.0° - F1.5 - 640 x 480 resolution	Human D: 10070m R: 2320m I: 1440m	<b>Vehicle</b> D: 16400m R: 8490m I: 5870m	RHT07ILB25Z225FW

SZ	Product Name	Details	Product Code
PTIOI	129mm HD RHT	- 30x zoom optical lens (4.3-129mm) - 1/2.8" CMOS sensor - 1920 x 1080 HD resolution	RHT06IYJ04Z129W
-E 01	500mm HD RHT	- 33x zoom optical lens (15.2-500mm) - 1/1.9" CMOS sensor - 1920 x 1080 HD resolution	RHT07IHA16Z500W
VISIBI	1000mm HD RHT	- 60x zoom optical lens (16.7-1000mm) - 1/1.9" CMOS sensor - 1920 x 1080 HD resolution - Optional 2x extender	RHT07IHA16Z1000W

### **JAEGAR**

#### MODULAR, MULTI-SENSOR PLATFORM



The Jaegar platform is a highly accurate, high specification PTZ platform camera capable of supporting multi sensor technologies. Featuring a unique through shaft which allows a fixed payload to be mounted directly above the Jaegar pan and tilt director.

The Jaegar features market leading pan and tilt speeds (0.002° to 80° per second) with 360° continuous rotation, as well as absolute positioning and an accuracy level of 0.0002°.

Product Name	Details	Thermal De Ranges	etection	Product Code
Jaegar PTU	Jaegar pan and tilt unit	-	-	JPT-MK2-I36080W

	Product Name	Details	Thermal De Ranges	etection	Product Code
S	105mm RHT (Uncooled LWIR)	- 4x zoom thermal lens (26-105mm) - HFOV: 25.3° to 5.9° - F1.6 - 640 x 480 resolution	Human D: 2300m R: 580m I: 360m	<b>Vehicle</b> D: 7100m R: 1780m I: 1090m	RHT06IDB26Z105FW
TION	150mm RHT (Uncooled LWIR)	- 6x zoom thermal lens (25-150mm) - HFOV: 25.3° to 4.1° - F1.4 - 640 x 480 resolution	Human D: 3290m R: 830m I: 510m	<b>Vehicle</b> D: 10150m R: 2540m I: 1560m	RHT07IDB25Z150FW
L OP	225mm RHT (Uncooled LWIR)	- 9x zoom thermal lens (25-225mm) - HFOV: 22.3° to 2.8° - F1.5 - 640 x 480 resolution	Human D: 4930m R: 1235m I: 760m	<b>Vehicle</b> D: 15220m R: 3805m I: 2340m	RHT07IDB25Z225FW
RMA	150mm LR RHT (Uncooled LWIR)	- 6x zoom thermal lens (25-150mm) - HFOV: 17.5° to 3.0° - F1.4 - 640 x 480 resolution	Human D: 7760m R: 1660m I: 1020m	<b>Vehicle</b> D: 14170m R: 6180m I: 4190m	RHT07ILB25Z150FW
THE	225mm LR RHT (Uncooled LWIR)	- 9x zoom thermal lens (25-225mm) - HFOV: 17.5° to 2.0° - F1.5 - 640 x 480 resolution	Human D: 10070m R: 2320m I: 1440m	<b>Vehicle</b> D: 16400m R: 8490m I: 5870m	RHT07ILB25Z225FW
	300mm LR RHT (Uncooled LWIR)	- 7.5x zoom thermal lens (40-300mm) - HFOV: 11.0° to 1.5° - F1.5 - 640 x 480 resolution	Human D: 11970m R: 3070m I: 1910m	<b>Vehicle</b> D: 18850m R: 10980m I: 7750m	RHT07ILB40Z300FW

### **JAEGAR**

#### MODULAR, MULTI-SENSOR PLATFORM



The Jaegar platform is a highly accurate, high specification PTZ platform camera capable of supporting multi sensor technologies. Featuring a unique through shaft which allows a fixed payload to be mounted directly above the Jaegar pan and tilt director.

The Jaegar features market leading pan and tilt speeds (0.002° to 80° per second) with 360° continuous rotation, as well as absolute positioning and an accuracy level of 0.0002°.

S	Product Name	Details	Thermal Detection Ranges		Product Code
TION	300mm RHT (Cooled MWIR)	- 20x zoom thermal lens (15-300mm) - HFOV: 35.5° to 1.83° - F4.0 - 640 x 512 resolution	Human D: 10970m R: 2360m I: 1440m	<b>Vehicle</b> D: 20110m R: 8790m I: 5960m	RHT07IGB15Z300FW
L OP	690mm RHT (Cooled MWIR)	- 19.7x zoom thermal lens (35-690mm) - HFOV: 15.6° to 0.8° - F4.0 - 640 x 512 resolution	Human D: 21610m R: 5380m I: 3300m	<b>Vehicle</b> D: 29400m R: 19040m I: 13350m	RHT07IGB35Z690FW
RMA	900mm RHT (Cooled MWIR)	- 20x zoom thermal lens (45-900mm) - HFOV: 12.2° to 0.61° - F4.0 - 640 x 512 resolution	Human D: 24170m R: 6950m I: 4280m	<b>Vehicle</b> D: 31170m R: 22670m I: 16830m	RHT07IGB45Z900FW
THE	<b>960mm RHT</b> (Cooled MWIR)	- 12x zoom thermal lens (80-960mm) - HFOV: 11.0° to 0.9° - F4.0 - 1280 x 720 resolution	Human D: 30300m R: 8000m I: 6300m	<b>Vehicle</b> D: 50000m R: 20600m I: 16900m	RHT07HB80Z960FW

NS	Product Name	Details	Product Code
PTION	129mm HD RHT	- 30x zoom optical lens (4.3-129mm) - 1/2.8" CMOS sensor - 1920 x 1080 HD resolution	RHT06IYJ04Z129W
E 01	500mm HD RHT	- 33x zoom optical lens (15.2-500mm) - 1/1.9" CMOS sensor - 1920 x 1080 HD resolution	RHT07IHA16Z500W
VISIBI	1000mm HD RHT	- 60x zoom optical lens (16.7-1000mm) - 1/1.9" CMOS sensor - 1920 x 1080 HD resolution - Optional 2x extender	RHT07IHA16Z1000W

### **OCULUS EV02**

#### THE LATEST IN THERMAL TECHNOLOGY



Our EVO2 range offers the very latest in thermal technology, utilising the latest sensors. Much of the range offers autofocus and video analytics that can be customised to meet requirements.

The Oculus EVO2 range offers fixed thermal lens options up to 35mm paired with a secondary HD visible zoom lens (4.3-129mm).

Above: example model within the Oculus EVO2 range, exact models may differ.

Product Name	Details	Thermal D	Detection	Product Code
Oculus EV02 13mm (17µm) (Uncooled LWIR)	- Fixed thermal lens (13mm) - HD visible lens (4.3-129mm with 30x zoom) - HFOV: 28.77° - F1.0 - 384 x 288 resolution	Human D: 285m R: 71m I: 44m	<b>Vehicle</b> D: 1147m R: 287m I: 176m	RC3-51IYJ30X-CDA28FW
Oculus EV02 35mm (17µm) (Uncooled LWIR)	- Fixed thermal lens (35mm) - HD visible lens (4.3-129mm with 30x zoom) - HFOV: 10.69° - F1.0 - 384 x 288 resolution	Human D: 767m R: 192m I: 118m	<b>Vehicle</b> D: 3088m R: 772m I: 475m	RC3-51IYJ30X-CDA10FW
Oculus EV02 13mm (12µm) (Uncooled LWIR)	- Fixed thermal lens (13mm) - HD visible lens (4.3-129mm with 30x zoom) - HFOV: 33.85° - F1.0 - 640 x 512 resolution	Human D: 404m R: 101m I: 62m	<b>Vehicle</b> D: 1625m R: 406m I: 250m	RC3-51IYJ30X-CDB33FW
Oculus EV02 35mm (12µm) (Uncooled LWIR)	- Fixed thermal lens (35mm) - HD visible lens (4.3-129mm with 30x zoom) - HFOV: 12.57° - F1.0 - 640 x 512 resolution	Human D: 1086m R: 272m I: 167m	<b>Vehicle</b> D: 4375m R: 1094m I: 673m	RC3-51IYJ30X-CDB12FW
Oculus EV02 13mm (14µm) (Uncooled LWIR)	- Fixed thermal lens (13mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 63.18° - F1.0 - Resolution: 1024 x 768	Human D: 346m R: 86m I: 53m	<b>Vehicle</b> D: 1393m R: 348m I: 214m	RC3-51IYJ30X-CDC63FW
Oculus EV02 35mm (14µm) (Uncooled LWIR)	- Fixed thermal lens (35mm) - HD visible lens (4.3-129mm with 30x zoom) - HFOV: 23.47° - F1.0 - Resolution: 1024 x 768	Human D: 931m R: 233m I: 143m	<b>Vehicle</b> D: 3750m R: 938m I: 577m	RC3-51IYJ30X-CDC23FW

### **AERON EV02**

#### THE LATEST IN THERMAL TECHNOLOGY



Our EVO2 range offers the very latest in thermal technology, utilising the latest sensors. Much of the range offers autofocus and video analytics that can be customised to meet requirements.

The Aeron EVO2 range offers fixed and zoom thermal lens options up to 26-105mm paired with a secondary HD visible zoom lens (4.3-129mm).

Above: example model within the Aeron EVO2 range, exact models may differ.

Product Name	Details	Thermal D Ranges	etection	Product Code
Aeron EV02 50mm (12μm) (Uncooled LWIR)	- Fixed thermal lens (50mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 8.8° - F1.0 - 640 x 512 resolution	Human D: 1552m R: 388m I: 239m	<b>Vehicle</b> D: 6250m R: 1563m I: 962m	RC4-51IYJ30X-CDB08FW
Aeron EV02 65mm (12μm) (Uncooled LWIR)	- Fixed thermal lens (65mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 6.77° - F1.2 - 640 x 512 resolution	Human D: 2018m R: 504m I: 310m	<b>Vehicle</b> D: 8125m R: 2031m I: 1250m	RC4-51IYJ30X-CDB06FW
Aeron EV02 100mm (12µm) (Uncooled LWIR)	- Fixed thermal lens (100mm) - HD visible lens (4.3–129mm with 30x zoom) - HF0V: 4.4° - F1.6 - 640 x 512 resolution	Human D: 3104m R: 776m I: 478m	Vehicle D: 12500m R: 3125m I: 1923m	RC4-51IYJ30X-CDB04FW
Aeron EV02 75mm (12μm) (Uncooled LWIR)	- 3x zoom thermal lens (25-75mm) with autofocus - HD visible lens (4.3 -129mm with 30x zoom) - HFOV: 17.6° to 5.87° - F1.2 - 640 x 512 resolution	Human D: 2328m R: 582m I: 358m	<b>Vehicle</b> D: 9375m R: 2344m I: 1442m	RC4-51IYJ30X-CDB25Z75AFW
Aeron EV02 105mm (12µm) (Uncooled LWIR)	<ul> <li>Zoom thermal lens (26-105mm) with autofocus</li> <li>HD visible lens (4.3 -129mm with 30x zoom)</li> <li>HFOV: 16.92° to 4.19°</li> <li>F1.6</li> <li>640 x 512 resolution</li> </ul>	Human D: 3259m R: 815m I: 501m	<b>Vehicle</b> D: 13125m R: 3281m I: 2019m	RC4-51IYJ30X-CDB26Z105FW

### **AERON EV02**

#### THE LATEST IN THERMAL TECHNOLOGY



Our EVO2 range offers the very latest in thermal technology, utilising the latest sensors. Much of the range offers autofocus and video analytics that can be customised to meet requirements.

The Aeron EVO2 range offers fixed and zoom thermal lens options up to 26-105mm paired with a secondary HD visible zoom lens (4.3-129mm).

Above: example model within the Aeron EVO2 range, exact models may differ.

Product Name	Details	Thermal Detection Ranges		Product Code
Aeron EV02 50mm (14μm) (Uncooled LWIR)	- Fixed thermal lens (50mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 16.43° - F1.2 - Resolution: 1024 x 768	Human D: 1330m R: 333m I: 205m	Vehicle D: 5357m R: 1339m I: 824m	RC4-51IYJ30X-CDC16FW
Aeron EV02 65mm (14µm) (Uncooled LWIR)	- Fixed thermal lens (65mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 12.64° - F1.2 - Resolution: 1024 x 768	Human D: 1729m R: 432m I: 266m	Vehicle D: 6964m R: 1741m I: 1071m	RC4-51IYJ30X-CDC12FW
Aeron EV02 100mm (14µm) (Uncooled LWIR)	- Fixed thermal lens (100mm) - HD visible lens (4.3-129mm with 30x zoom) - HF0V: 8.21° - F1.6 - Resolution: 1024 x 768	Human D: 2661m R: 665m I: 409m	<b>Vehicle</b> D: 10714m R: 2679m I: 1648m	RC4-51IYJ30X-CDC08FW
Aeron EV02 75mm (14µm) (Uncooled LWIR)	- Zoom thermal lens (25-75mm) with autofocus - HD visible lens (4.3-129mm with 30x zoom) - HFOV: 32.86° to 10.95° - F1.2 - Resolution: 1024 x 768	Human D: 1996m R: 499m I: 307m	Vehicle D: 8036m R: 2009m I: 1236m	RC4-51IYJ30X-CDB25Z75AFW
Aeron EV02 105mm (14µm) (Uncooled LWIR)	<ul> <li>Zoom thermal lens (26-105mm)</li> <li>HD visible lens (4.3-129mm with 30x zoom) with autofocus</li> <li>HFOV: 31.59° to 7.82°</li> <li>F1.6</li> <li>Resolution: 1024 x 768</li> </ul>	Human D: 2794m R: 698m I: 430m	Vehicle D: 11250m R: 2813m I: 1731m	RC4-51IYJ30X-CDB26Z105FW

### **BULLET EV02**

#### THE LATEST IN THERMAL TECHNOLOGY

The thermal bullet cameras benefit from a wide range of fixed lens, have an IP67 level of environmental protection and are POE+.

The bullet cameras feature market leading  $17\mu m$ ,  $14\mu m$  and  $12\mu m$  thermal sensors.

Product Name	Details	Thermal Detection Ranges		Product Code
EV02 Bullet 13mm (12µm)	- Fixed thermal lens (13mm) - HFOV: 33.85° - F1.0 - Resolution: 640 x 512	Human D: 404m R: 101m I: 62m	<b>Vehicle</b> D: 1625m R: 406m I: 250m	HTB-CDB33-G
EV02 Bullet 35mm (12µm)	- Fixed thermal lens (35mm) - HFOV: 12.57° - F1.0 - Resolution: 640 x 512	Human D: 1086m R: 272m I: 167m	<b>Vehicle</b> D: 4375m R: 1094m I: 673m	HTB-CDB12-G
EVO2 Bullet 50mm (12µm)	- Fixed thermal lens (50mm) - HFOV: 8.8° - F1.0 - Resolution: 640 x 512	Human D: 1552m R: 388m I: 239m	<b>Vehicle</b> D: 6250m R: 1563m I: 962m	HTB-CDB08-G

Product Name	Details	Thermal Detection Ranges		Product Code	
EV02 Bullet 13mm (17µm)	- Fixed thermal lens (13mm) - HF0V: 28.77° - F1.0 - Resolution: 384 x 288	Human D: 285m R: 71m I: 44m	<b>Vehicle</b> D: 1147m R: 287m I: 176m	HTB-CDA28-G	
EVO2 Bullet 35mm (17µm)	- Fixed thermal lens (35mm) - HF0V: 10.69° - F1.0 - Resolution: 384 x 288	Human D: 767m R: 192m I: 118m	<b>Vehicle</b> D: 3088m R: 772m I: 475m	HTB-CDA10-G	
EV02 Bullet 50mm (17µm)	- Fixed thermal lens (50mm) - HFOV: 7.48° - F1.0 - Resolution: 384 x 288	Human D: 1096m R: 274m I: 168m	<b>Vehicle</b> D: 4412m R: 1103m I: 679m	HTB-CDA07-G	

Product Name	Details	Thermal Detection Ranges		Product Code
EV02 Bullet 13mm (14µm)	- Fixed thermal lens (13mm) - HF0V: 63.18° - F1.0 - Resolution: 1024 x 768	Human D: 346m R: 86m I: 53m	<b>Vehicle</b> D: 1393m R: 348m I: 214m	HTB-CDC63-G
EV02 Bullet 35mm (14µm)	- Fixed thermal lens (35mm) - HFOV: 23.47° - F1.0 - Resolution: 1024 x 768	Human D: 931m R: 233m I: 143m	<b>Vehicle</b> D: 3750m R: 938m I: 577m	HTB-CDC23-G
EV02 Bullet 50mm (14µm)	- Fixed thermal lens (50mm) - HFOV: 16.4° - F1.2 - Resolution: 1024 x 768	Human D: 1330m R: 333m I: 205m	<b>Vehicle</b> D: 5357m R: 1339m I: 824m	HTB-CDC16-G

### **MOUNTS AND ACCESSORIES**

Product Type	Details	Product Code	Compatible with:
Power Supply	Power supply unit for IP camera	RC-PSB1-N	All Oculus and Aeron units
Power Supply	PSU 30VDC IP with Cat-5 connectivity	PSBD305ANPT	All Osiris units
Power Supply	PSU 48VDC IP with Cat-5 connectivity	PSBD487ANPT	All Jaegar units
Power Supply	SMART PSU 48VDC IP with Cat-5 connectivity	SMARTPSBD4810APT	All Jaegar units

Product Type	Details	Product Code	Compatible with:
Cable	5 metre cable for IP/analogue cameras	CA-UCM-05	All Oculus, and Aeron units
Cable	10 metre cable for IP/analogue cameras	CA-UCM-10	All Oculus, and Aeron units
Cable	Price per metre to extend the above cables for IP/analogue cameras	UCM-01	All Oculus, Aeron and Osiris units
Cable	5 metre cable for IP/analogue cameras (pre terminated both ends)	CA-UCM-PT-05	All Osiris units
Cable	10 metre cable for IP/analogue cameras (pre terminated both ends)	CA-UCM-PT-10	All Osiris units
Cable	5 metre cable for HD-IP camera	CA-JCM-PT-05	All Jaegar units
Cable	10 metre cable for HD-IP camera	CA-JCM-PT-10	All Jaegar units
Cable	Price per metre to extend the above cables for HD-IP camera	JCM-01	All Jaegar units

Product Type	Details	Product Code	Compatible with:
Mount	Tower mount adaptor, white colour	RC-TMP-W	All Oculus and Aeron units
Mount	Swan neck, white colour	RC-PMG-W	All Oculus and Aeron units
Mount	Wall mount, white colour	RC-WM-W	All Oculus and Aeron units
Mount	Pendant pole, white colour	RC-PPM-W	All Oculus and Aeron units
Mount	Corner mount, white colour	RC-CM-W	All Oculus and Aeron units
Mount	Pole mount adaptor, white colour	RC-PMA-W	All Oculus and Aeron units
Mount	PT Platform single height pole mount adaptor, white colour	P300-PM160W	All Osiris and Jaegar Units (Can be an option for Oculus and Aeron too)
Mount	Thru-shaft top mount 200mm extension, white colour (payload dependant)	Contact for info – please specify your payload model and type.	All Jaegar units

### **MOUNTS AND ACCESSORIES**

Product Type	Details	Product Code	Compatible with:
Extras	Oculus sun shield, white colour	RC3-SPC-W	All Oculus models (cannot be fitted with a sun cowl or bird spike)
Extras	Oculus sun cowl, white colour	RC3-SC-W	All Oculus models (cannot be fitted with a sunshield)
Extras	Oculus bird spike, white colour	RC3-BD-W	All Oculus models (cannot be fitted with a sunshield)
Extras	Oculus washer nozzle	RC3-SWA	Oculus HD unit
Extras	Oculus IR / WL / thermal washer nozzle	RC3-SWA2	All Oculus models
Extras	Aeron sun shield, white colour	RC4-SPC-W	All Aeron models (cannot be fitted with a sun cowl or bird spike)
Extras	Aeron bird spike, white colour	RC4-BD-W	All Aeron models (cannot be fitted with a sunshield)
Extras	Aeron washer nozzle	RC4-SWA3	All Aeron models
Extras	Oculus / Aeron video replacement wiper	RC-WAA	All Oculus and Aeron units
Extras	Oculus / Aeron IR / WL / thermal wiper	RC-WAA2	All Oculus and Aeron units
Extras	Oculus / Aeron Image Fusion for fixed lens thermal cameras (not zoom thermal lens)	RC-FUSION	All fixed lens Oculus and Aeron units
Extras	Custom paint colour (change the W at the end of the camera part code to X)	RC-PCC-X	All Oculus and Aeron units
Extras	Oculus / Aeron extended heater	RC-HEATER	All Oculus and Aeron units
Extras	Jaegar extended heater	JPT-HEATER	All Jaegar units
Extras	Jaegar IP GPS Compass	JPT-GPSCOPASS-N	All Jaegar units

Product Type	Details	Product Code	Compatible with:
Washer	Washer tank, 5L, 110/230vAC	RC-WP5L/230	All Oculus and Aeron units (requires washer nozzle)
Washer	Washer tank, 10L, 110/230vAC	RC-WP10L/230	All Oculus and Aeron units (requires washer nozzle)
Washer	Washer tank, 25L, 110/230vAC	RC-WP25L/230	All Oculus and Aeron units (requires washer nozzle)



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