



# OSIRIS RANGER EVO2 HD

## UNCOOLED LWIR THERMAL ZOOM LENS OPTIONS:

- 25mm to 75mm
- 30mm to 150mm
- 25mm to 225mm



Above: Osiris Ranger EVO2 HD 25-225mm.  
Other models will vary.

The Osiris EVO2 HD is an accurate, multi sensor platform which utilises long range uncooled LWIR HD thermal sensors with a range of zoom lens options up to 25-225mm, alongside the latest low light HD visible sensor with zoom lens up to 20-2400mm. The EVO2 range employs the latest 12µm thermal technology which has push autofocus capabilities as standard.

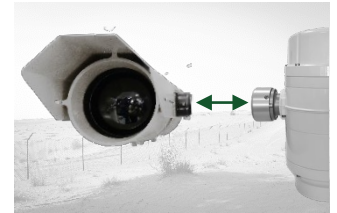
Combining advanced motor drive technology along with harmonic drives gears, all Osiris camera platforms are able to position our long range sensors accurately and quickly. The Osiris is also capable of incorporating specialist technologies such as long range illumination.

The Osiris's ruggedised design allows a high level of environment protection which is suitable for the most extreme and challenging environments.

## KEY FEATURES

- Thermal camera detection\* ranges up to 6.98km (human)
- Uncooled 12µm LWIR HD thermal sensors with zoom lens options up to 25-225mm
- Push autofocus as standard on the thermal sensors
- HD visible sensors with zoom lens options up to 20-2400mm
- 360° continuous rotation with pan and tilt speeds between 0.02° and 45° per second
- High level of camera positioning accuracy: 0.002°
- Absolute feedback, virtually zero backlash with automatic self position correction
- Unique cable managed, rapid release mechanism and bore sighting allows cameras to be quickly installed and changed in the field
- System configuration and sensors can be chosen to suit the specific requirements
- Ideally suited for single mast deployments such as mobile, border and maritime applications

\*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 the EVO2 HD 225.



### RAPID RELEASE MECHANISM

Allows quick changing of payloads



### MODULAR DESIGN

Enables cost effective, accurate long range surveillance



### IP67 RATED

Ruggedized and well suited to maritime applications





# OSIRIS RANGER EVO2 HD

## UNCOOLED LWIR THERMAL ZOOM LENS CAMERAS



Above: Osiris Ranger EVO2 HD 25-225mm.  
Other models will vary.

THERMAL SENSORS	OPT-EV02-HD-75-W	OPT-EV02-HD-150-W	OPT-EV02-HD-225-W
Focal Length	25mm to 75mm	30mm to 150mm	25mm to 225mm
Horizontal FOV	36.7° (W) to 11.5° (T)	28.7° (W) to 5.9° (T)	34.2° (W) to 3.9° (T)
F Number	F1.2	F1.2	F1.5
Optical Zoom (Continuous)	3x, Motorised	5x, Motorised	9x, Motorised
Digital Zoom		1x to 4x [0.1 steps]	
Focus		Push autofocus, manual	
Detector Type	Uncooled VOx microbolometer, <math>\leq 50\text{mK}</math> (at 25°C, F1.0), 30Hz, 12µm, HD (1280 x 1024)		
Spectral Band	7.5 to 14µm (LWIR) / 8 to 14µm		
Image Stabilisation	Yes, electronic image stabilisation (cost option)		
Image Processing	Non-Uniform Correction (NUC), noise filtering, polarity control, Digital Detail Enhancement (DDE), polarity: white hot / black hot, 18x colour palettes		
Housing Weight	Typically 12Kg / 26.4lb		
Housing Size (mm)	L572 x W258 x H226		

HD VISIBLE SENSORS		
Focal Length	4.3mm to 129mm	15.2mm to 500mm
Horizontal FOV	63.7° (W) to 2.32° (T)	23.42° (W) to 0.78° (T)
F Number	F1.6 to F4.7	F3.0 to F32
Optical Zoom (Continuous)	30x, Motorised	33x, Motorised
Digital Zoom	12x	-
Focus	Automatic, manual	Push autofocus, manual
Image Sensor	1/2.8" CMOS Exmor (2.13MP), full HD 1080p (1920 x 1080)	1/1.9" CMOS Sensor (2.38 MP), full HD 1080p (1920 x 1080)
Min. Sensitivity	Colour 0.01 lux Mono 0.0008 lux (high sensitivity mode)	Colour 0.05 lux F1.2 gain of up to 60dB / 0.005 lux F1.2 / AGC @ 42dB Mono 0.002 lux F1.2 gain of up to 60dB / 0.0002 lux F1.2 / AGC @ 42dB (accumulation 25 times)
Image Stabilisation	Yes, electronic image stabilisation	Yes, electronic image stabilisation (cost option)
Other Features	Defog, digital noise reduction	
Housing Weight	Typically 4Kg / 8.8lb	Typically 14Kg / 30.9lb
Housing Size (mm)	L460 x W184 x H156	L572 x W258 x H231

OSIRIS PAN AND TILT UNIT (PTU)	
Pan Range / Velocity	360° continuous / 0.02° to 45.0° per second
Tilt Range / Velocity	-90° to +90° / 0.02° to 45.0° per second
Accuracy	0.002° / 0.035 mRad
Repeatability	0.002° / 0.035 mRad
Actuation	Custom stepper motors
Speed Control	Zoom dependent speed control
Presets	127x Preset positions, 16x preset tours
Protocols	Pelco D, Pelco D Extended, ONVIF Profile S
Interface	RS485, ONVIF Profile-S, Serial <-> IP
Positioning	Absolute positioning feedback
Through Shaft	No
PTU Weight	15.2kg / 35.5lb (excluding mounts and payloads, payload capacity 50kg)
PTU Size (mm)	H361.3 x W225 x D225 (excluding mounts and payloads)

ELECTRICAL AND MECHANICAL	
Video Output	IP, ONVIF, RTSP {Composite (PAL / NTSC) cost option}
Video over IP	Integrated IP encoders provide simultaneous H.264 RSTP (H.265 cost option)
Ethernet	Command and control of all functions including streaming of H.264 streams
RS485	Command and control of all functions and firmware upgrade
Input Voltage	Nominal 30vDC (28-32vDC)
System Power Consumption	Typical: 53W Peak: 100W (including thermal and visible sensor payloads)
Housing Material	Anodised aluminum, white powder marine grade paint finish (other colours are available upon request)
IP Rating	IP67
Temperature Range	-30°C (-22°F) up to 65°C (149°F) [-40°C with optional heaters]

OPTIONALLY AVAILABLE	
HD Low Light Visible Sensor	16.7mm to 2000mm [21.2° W to 0.23° T] (with x2 extender on) 1/1.9" CMOS Sensor (2.38MP), full HD (1920 x 1080), colour 0.005 lux at F1.2 / 42dB mono 0.0002 lux at F1.2 / 42dB
HD Ultra Low Light Visible Sensor	15.2mm to 500mm [32.39° W to 1.0° T] or 20mm to 2400mm [24.87° W to 0.23° T] (with x2 extender on) 2/3" CMOS Sensor (2.2MP), full HD (1920 x 1080), colour 0.005 lux at F1.4 / 50IRE, mono 0.000000001 lux at F1.4 / 50IRE
4K Visible Sensor	4.4mm to 88.4mm [70.2° W to 4.1° T] 1/2.5" CMOS Sensor (8.51MP), 4K/QFHD (3840 x 2160), colour 0.4 lux (colour 0.06 lux with slow shutter on)
Technologies	Hardware based target acquisition and tracking capability, long range white light or infra-red illuminators (up to 3.5km), SWIR sensors
Storage	Up to 64GB in total via SD/MMC (32GB available per channel when using thermal and visible / 2x cameras)

## PLEASE CONTACT US FOR A SPECIFIC CONFIGURATION

Specifications may be subject to change without notice  
18/11/22 V4.3

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

