

OSIRIS RANGER LR

**LR UNCOOLED LWIR THERMAL ZOOM LENS OPTIONS:
25mm to 150mm
25mm to 225mm**



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

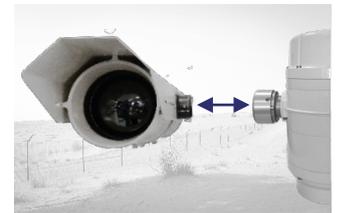
The Osiris Ranger LR is a high performance, multi sensor platform which utilises advanced LR uncooled thermal sensors with zoom lenses up to 25-225mm alongside a HD visible sensor with a 15.2-500mm lens. The LR range is designed to bridge the gap between cooled and uncooled thermal sensor performance. With high sensitivity and enhanced contrast levels, the LR range features image stabilisation, autofocus and CLAHE video processing 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.

With an IP67 level of environmental protection and hard anodised housings, the Osiris is suitable for the most harsh and challenging applications.

KEY FEATURES

- Thermal camera detection* ranges up to 10km (human) and 16.4km (vehicle)
- LR advanced uncooled LWIR 12 μ m, 640 x 480 thermal sensors with zoom lens options up to 25-225mm
- HD visible sensor with a 15.2 to 500mm (33x) zoom lens
- 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
- Ruggedised for extreme and challenging environments
- IP67 rating
- Ideally suited for single mast deployments such as mobile, border and maritime applications



RAPID RELEASE MECHANISM
Allows quick changing of payloads



IP67 RATED
Ruggedized and well suited to maritime applications



12 μ m SENSOR
Longer range performance from an uncooled thermal

* Ranges are based upon 50% probability on a MODTRAN standard atmosphere.
Detailed NVIPM calculation notes available upon request. Based on the RANGER-LR-300.

Specifications may be subject to change without notice
E&EO 22/07/21 V4.1

OSIRIS RANGER LR

LR UNCOOLED LWIR THERMAL ZOOM LENS CAMERAS



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THERMAL SENSOR - 640 x 480, 12µm PIXEL PITCH

Part Code	RANGER-LR-150	RANGER-LR-225
Focal Length	25 to 150mm	25 to 225mm
Field of View	17.5° (W) to 3.0° (T)	17.5° (W) to 2.0° (T)
Optical Zoom	6x, motorised	9x, motorised
F Number	F1.4	F1.5
Sensitivity	<30 mK (NETD) f/1.0 at room temperature*	
Detector Type	Uncooled VOx microbolometer	
Resolution	12µm, 640 x 480	
Spectral Band	7.5 to 13µm (LWIR)	
Frequency	25Hz (9Hz option)	
Focus	Push autofocus, manual	
Digital Zoom	4x	
Image Stabilisation	Yes, electronic	
Image Processing	CLAHE / LAP Alpha blending	
Image Control	Polarity: White hot / black hot, various user palettes. Orientation: Invert / revert. Shutter and scene based NUC. Spatial / temporal de-noise. Automatic gain control.	
Housing Weight	Typically 12Kg / 26.4lb	
Housing Size (mm)	L572 x W258 x H226	

HD VISIBLE SENSOR

Focal Length	15.2mm to 500mm
Image Sensor	1/1.9" CMOS Sensor (2.38 MP), full HD 1080p (1920 x 1080)
F-Number	F3.0 to F32
Horizontal FOV	23.42° (W) to 0.78° (T)
Optical Zoom	33x, Motorised
Digital Zoom	-
Focus	Push autofocus, manual
Image Stabilisation	Yes (cost option) [electronic image stabilisation]
Min. Sensitivity	Colour 0.05 lux F1.2 gain of up to 60dB / 0.005 lux F1.2 / AGC @ 42dB (accumulation 25 times) Mono 0.002 lux F1.2 gain of up to 60dB / 0.0002 lux F1.2 / AGC @ 42dB (accumulation 25 times)
Other Features	Defog, digital noise reduction
Housing Weight	Typically 14Kg / 30.9lb
Housing Size (mm)	L572x W258x H231

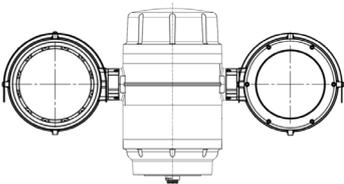
OSIRIS PAN AND TILT UNIT (PTU)

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 (subject to payload)
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)

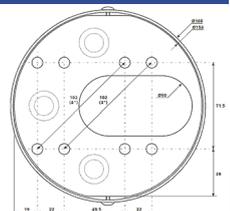
PART CODES

OPT-H-RANGER-LR-150-W	Osiris Ranger LR 150 – High powered PT, with a 640x480, 12µm, 25Hz, 25-150mm, F1.4 thermal camera and a HD, 15.2-500mm (33x optical zoom lens) video camera, white colour
OPT-H-RANGER-LR-225-W	Osiris Ranger LR 225 – High powered PT, with a 640x480, 12µm, 25Hz, 25-225mm, F1.5 thermal camera and a HD, 15.2-500mm (33x optical zoom lens) video camera, white colour
Options	All cable, ancillary and optional part numbers are available upon request

TYPICAL OSIRIS CAMERA PLATFORM**



Osiris PT Platform Mounting



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*As measured after image post-process techniques were applied
** Illustrations are indicative and subject to the final configuration/model.

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SILENT SENTINEL
VISION & MOTION CONTROL