

OSIRIS RANGER

UNCOOLED LWIR THERMAL ZOOM LENS OPTIONS:

- 26mm to 105mm
- 25mm to 150mm
- 25mm to 225mm



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

The Osiris Ranger is an accurate, multi sensor platform which utilises long range uncooled LWIR thermal sensors with a range of zoom lenses up to 25-225mm alongside a HD visible sensor with a 15.2-500mm lens.

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 4.9km (human) and 15.2km (vehicle)
- Uncooled LWIR 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



MODULAR DESIGN

Enables cost effective, accurate long range surveillance



IP67 RATED

Ruggedized and well suited to 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 RANGER -225.



OSIRIS RANGER

UNCOOLED LWIR THERMAL ZOOM LENS CAMERAS



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THERMAL SENSOR - 640 x 480, 17µM PIXEL PITCH

Part Code	RANGER-105	RANGER-150	RANGER-225
Focal Length	26 to 105mm	25 to 150mm	25 to 225mm
Field of View	25.3° (W) - 5.9° (T)	25.3°(W) - 4.1° (T)	22.3° (W) - 2.8° (T)
Optical Zoom	4x, motorised	6x, motorised	9x, motorised
F Number	F1.6	F1.4	F1.5
Sensitivity	<50 mK (NETd) at room temperature		
Detector Type	Uncooled VOx microbolometer		
Resolution	17µm, 640 x 480 (lower resolution 320 x 240 sensors are available on request)		
Spectral Band	8 to 14 µm (LWIR)		
Frequency	25Hz (9Hz, 30Hz options)		
Focus	Manual (push autofocus cost option)		
Digital Zoom	4x		
Image Stabilisation	Yes, electronic (cost option)		
Image Processing	Polarity control, tune-able contrast enhancement		
Image Control	Polarity: White hot / black hot. Orientation: Invert / revert		
Housing Weight	Typically 4Kg / 8.8lb	Typically 12Kg / 26.4lb	
Housing Size (mm)	L460 x W184 x H156	L572x W258x 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	

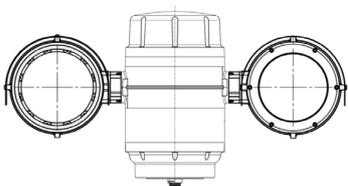
OSIRIS PAN AND TILT UNIT (PTU)

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-105-W	Osiris Ranger 105 – High powered PT, with a 640x480, 17µm, 25Hz, 26-105mm, F1.6 thermal camera and a HD, 15.2-500mm (33x optical zoom lens) video camera, white colour
OPT-H-RANGER-150-W	Osiris Ranger 150 – High powered PT, with a 640x480, 17µm, 25Hz, 25-150mm, F1.4 thermal camera and a HD, 15.2-500mm (33x optical zoom lens) video camera, white colour
OPT-H-RANGER-225-W	Osiris Ranger 225 – High powered PT, with a 640x480, 17µm, 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*



* Illustrations are indicative and subject to the final configuration/model.

IMAGE PRESENTATION

Video Output	IP, ONVIF, RTSP and Composite (PAL / NTSC)
Video Over IP	Integrated IP encoders provide simultaneous H.264 RSTP (H.265 optional) and ONVIF Profile-S

TELEMETRY

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

INTERFACES

Ethernet	Command and control of all functions incl. streaming of H.264 Video (ONVIF)
RS485	Command and control of all functions and firmware upgrade

ELECTRICAL AND MECHANICAL

Input Voltage	Nominal 30vDC (28-32vDC)		
Power Consumption	Typical: 53W, peak: 100W (including thermal and visible sensor payloads)		
Housing Material	Anodised aluminum (sunshields are iridized aluminum), white powder marine grade paint finish (other colours are available upon request)		
System Weight	35kg / 77lbs incl. payloads	45kg / 99lbs incl. payloads	45kg / 99lbs incl. payloads

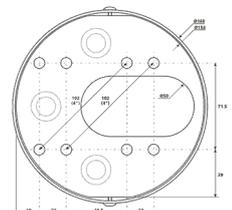
ENVIRONMENTAL

IP Rating	IP67
Temperature Range	-30°C (-22°F) up to 65°C (149°F) [-40°C with optional heater]

OPTIONS

Automatic Tracking	Hardware based target acquisition and tracking capability
Ultra Low Light HD Sensor	2/3" CMOS sensor (2.2MP) Colour 0.005 lux at F1.4, mono 0.000000001 lux at F1.4
4K Visible Sensor	4K colour sensor, 4.4-88.4mm lens Colour 0.4 lux (colour 0.06 lux with slow shutter on)
Visible Lens	Up to 2400mm lens
Laser Range Finders	Up to 20km
Illuminators (White / IR)	Up to 3.5km
Storage	Up to 64GB in total via SD/MMC (32GB available per channel if using thermal and video / 2x cameras)

Osiris PT Platform Mounting



Specifications may be subject to change without notice
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