JAEGAR RANGER LR

LR UNCOOLED LWIR THERMAL ZOOM LENS OPTIONS:

25mm to 150mm 25mm to 225mm 40mm to 300mm



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

The Jaegar Ranger LR is a high performance, multi sensor platform which utilises advanced LR uncooled thermal sensors with zoom lenses up to 40-300mm 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 drive gears, all Jaegar camera platforms are able to position our longest range sensors accurately and quickly. The Jaegar benefits from a fixed through shaft, which can enable payloads such as a RADAR to be mounted directly above the PT director.

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

KEY FEATURES

- Thermal camera detection* ranges up to 11.9km (human) and 18.8km (vehicle)
- LR advanced uncooled LWIR 12μm, 640 x 480 thermal sensors with zoom lens options up to 40-300mm
- HD visible sensor with a 15.2 to 500mm (33x) zoom lens
- Through shaft enabling fixed payloads to be mounted above the PT director
- 360° continuous rotation with pan and tilt speeds between 0.002° and 100° per second
- High level of camera positioning accuracy: 0.0002°
- 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
- * Ranges are based upon 50% probability on a MODTRAN standard atmosphere. Detailed NVIPM calculation notes available upon request. Based on the RANGER-LR-300.



RAPID RELEASE MECHANISM

Allows quick changing

of payloads



THROUGH SHAFT
Enables fixed payloads to be
mounted above the PT Director



12μm SENSOR Longer range performance from an uncooled thermal

Specifications may be subject to change without notice









JAEGAR RANGER LR

LR UNCOOLED LWIR THERMAL ZOOM LENS CAMERAS



Above: Jaegar Ranger LR 25-225mm

THERMAL SENSOR - 640 x 480, 12µm PIXEL PITCH					
Part Code	RANGER-LR-150	RANGER-LR-225	RANGER-LR-300		
Focal Length	25 to 150mm	25 to 225mm	40 to 300mm		
Field of View	17.5° (W) to 3.0° (T)	17.5° (W) to 2.0° (T)	11.0° (W) to 1.5° (T)		
Optical Zoom	6x, motorised	9x, motorised	7.5x, Motorised		
F Number	F1.4	F1.5	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 12	2Kg / 26.4lb	Typically 18.3Kg / 40.4lb		
Housing Size (mm)	L572 x W2	58 x H226	L580 x W282 x H257		

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			

Housing Size (mm)	L572x W258x H231			
JAEGER PAN AND TILT UNIT (PTU)				
Pan Range / Velocity	360° continuous / 0.002° to 100.0° per second			
Tilt Range / Velocity	-90°-to +90° / 0.002° to 100.0° per second			
Accuracy	0.0002° / 0.0035 mRad			
Repeatability	0.0002° / 0.0035 mRad			
Actuation	Custom stepper motors			
Speed Control	Zoom dependent speed control			
PTU Weight	22kg / 48.5lb (excl. mounts, through shaft and payloads) (payload capacity 50kg)			
PTU Size (mm)	H434 x W343x D343 (excluding mounts, through shaft and payloads)			

5///////	Other models will vary		
IMAGE PRESEN	ITATION		
Video Output	IP, ONVIF, RTSP, 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 AI	ND MECHANICAL		
Input Voltage	Nominal 48VDC (36-72VDC)		
Power Consumption	Typical: 60W, Peak: 170W (including thermal and visible sensor payloads)		
Housing Material	Anodised aluminum (sunshields are iridited aluminum), white powder marine grade paint finish (other colours are available upon request)		
System Weight	50kg / 110lbs incl. payloads	56kg / 124lbs incl. payloads	
ENVIRONMENT	AL		
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 0.00000001 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		
Long Range Acoustic Hailer	Up to 2km		
Digital Magnetic Compass	Optionally available		
GPS	Optionally available		
Laser Dazzlers	1W and 5W Laser dazzler module		
Aux Connectors	Optionally available for a selection of th Power outputs - 12vDC, 6A / 24vDC, 15A Network output - Cat5e, 10/100 F	/ 48vDC, 10A	

PART CODES

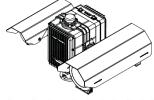
IPT-H-RANGER-I R-150-W Jaegar Ranger LR 150 - High powered PT, with a 640x480, 12µm, 25Hz, 25-150mm, F1.4 thermal camera and a HD, 15.2-500mm (33x optical zoom lens) video camera, white colour Jaegar Ranger LR 225 - High powered PT, with a 640x480, 12µm, 25Hz, 25-225mm, F1.5 thermal camera and a HD, 15.2-500mm (33x optical zoom lens) video camera, white colour JPT-H-RANGER-LR-225-W Jaegar Ranger LR 300 - High powered PT, with a 640x480, 12µm, 25Hz, 40-300mm, F1.5 thermal camera and a HD, 15.2-500mm (33x optical zoom lens) video camera, white colour All cable, ancillary and optional part numbers are available upon request

(4 slots)

Top Mount

Storage

TYPICAL JAEGAR CAMERA PLATFORM**



Jaegar PT Platform Mounting



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



Network output - Cat5e, 10/100 Base T Antenna connections – Cellular, GPS, WiFi, IP Radio, GPS Compass Top mount extension / plate (for RADAR or top mount payload)

Up to 64GB in total via SD/MMC

(32GB available per channel if using thermal and video / 2x cameras)



