JAEGAR RANGER

26mm to 105mm 25mm to 150mm

25mm to 225mm



The Jaegar Ranger is a high performance, 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 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.

UK Manufacturer

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
- 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

* 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.



RAPID RELEASE MECHANISM Allows quick changing of payloads



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



HIGH ACCURACY Designed for long range surveillance applications

Specifications may be subject to change without notice 27/07/21 V4.1



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JAEGAR RANGER UNCOOLED LWIR THERMAL ZOOM LENS CAMERAS

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 12	26.4lb ?	
Housing Size (mm)	L460 x W184 x H156	L572x W2	58x 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

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)



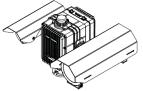
Above: Jaegar Ranger 25-225mm Other models will vary

R5485 Command and control of all functions and firmware upgrade ELECTRICAL AND 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 40kg / 83lbs 48kg / 10klbs 48kg / 10klbs System Weight 40kg / 83lbs 48kg / 10klbs 48kg / 10klbs IP Rating IP67 Temperature Range -30°C (-22°F) up to 65°C (149°F) (-40°C with optional heater) OPTIONS 2/3° CMOS sensor (2.2MP) Automatic Tracking Hardware based target acquisition and tracking capability Ultra Low Light HD 2/3° CMOS sensor (2.2MP) Sensor Colour 0.005 lux at F1.4, mono 0.00000001 lux at F1.4 4K Visible Sensor Colour 0.05 lux at F1.4, mono 0.00000001 lux at F1.4 4K Visible Sensor Up to 20km Laser Range Finders Up to 20km Illuminators Up to 20km Illuminators Up to 3.5km Long Range Acoustic Up to 22km Hailer Optionally available </th <th></th> <th></th> <th></th>			
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4K Visible Sensor Colour 0.4 lux (colour 0.0 kux 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 [4 slots] Optionally available for a selection of the following: Network output - Catés, 10/100 Base T Antenna connections - Cellular, GPS, WiFi, IP Radio, GPS Compass Top Mount Top mount extension / plate (for RADAR or top mount payload) Stenace Up to 64GB in total via SD/MMC			
Laser Range Finders Up to 20km Illuminators Up to 3.5km White / IR) Up to 3.5km Long Range Acoustic Up to 2km Digital Magnetic Optionally available Compass Optionally available GPS Optionally available Laser Dazzlers 1W and 5W Laser dazzler module Aux Connectors Optionally available for a selection of the following: Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A Network output - Cate, 10/100 Base T Antenna connections - Cellular, GPS, WiFi, IP Radio, GPS Compass Top Mount Top mount extension / plate (for RADAR or top mount payload) Stanapo Up to 64GB in total via SD/MMC	4K Visible Sensor		
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 (4 slots) Optionally available for a selection of the following: Network output - CatSe, 10/100 Base T Antenna connections - Cellular, GPS, WiFi, IP Radio, GPS Compass Top Mount Top mount extension / plate (for RADAR or top mount payload) Stenace Up to 64GB in total via SD/MMC	Visible Lens	Up to 2400mm lens	
(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 (4 slots) Optionally available for a selection of the following: Network output - Cat6e, 10/100 Base T Antenna connections - Cellular, GPS, WiFi, IP Radio, GPS Compass Top Mount Top mount extension / plate (for RADAR or top mount payload) Storage Up to 64GB in total via SD/MMC	Laser Range Finder	Up to 20km	
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 the following: Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A (4 slots) Top Mount Top mount extension / plate (for RADAR or top mount payload) Storage Up to 64GB in total via SD/MMC		Up to 3.5km	
Compass Optionally available GPS Optionally available Laser Dazzlers 1W and 5W Laser dazzler module Aux Connectors Optionally available for a selection of the following: Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A (4 slots) Aux Connectors Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A Network output - CatSe, 10/100 Base T Antenna connections - Cellular, 6PS, WiFi, IP Radio, GPS Compass Top Mount Top mount extension / plate (for RADAR or top mount payload) Storson Up to 64GB in total via SD/MMC		Up to 2km	
Laser Dazzlers IW and 5W Laser dazzler module Aux Connectors (4 slots) Optionally available for a selection of the following: Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A Network output - Cat5e, 10/100 Base T Antenna connections - Cellular, GPS, WiFi, IP Radio, GPS Compass Top Mount Top mount extension / plate (for RADAR or top mount payload) Up to 64GB in total via SD/MMC		Optionally available	
Aux Connectors Optionally available for a selection of the following: Aux Connectors Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A (4 slots) Network output - Cat5e, 10/100 Base T Antenna connections - Cellular, GPS, WiFi, IP Radio, GPS Compass Top Mount Top mount extension / plate (for RADAR or top mount payload) Storage Up to 64GB in total via SD/MMC	GPS	Optionally available	
Aux Connectors Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A (4 slots) Network output - Cat5e, 10/100 Base T Antenna connections - Cellular, GPS, WiFi, IP Radio, GPS Compass Top Mount Top mount extension / plate (for RADAR or top mount payload) Storage Up to 64GB in total via SD/MMC	Laser Dazzlers	1W and 5W Laser dazzler module	
Storage Up to 64GB in total via SD/MMC		Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A Network output – Cat5e, 10/100 Base T	
Storage Up to 64GB in total via SD/MMC	Top Mount	Top mount extension / plate (for RADAR or top mount payload)	
	Storage	Up to 64GB in total via SD/MMC (32GB available per channel if using thermal and video / 2x cameras)	

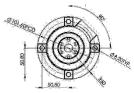
PART CODES

JPT-H-RANGER-105-W	Jaegar 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
JPT-H-RANGER-150-W	Jaegar 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
JPT-H-RANGER-225-W	Jaegar 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
Ontions	All cable, ancillary and optional part numbers are available upon request

TYPICAL JAEGAR CAMERA PLATFORM*



Jaegar PT Platform Mounting



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

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Specifications may be subject to change without notice 27/07/21 V4.1

