EVO²

JAEGAR RANGER EVO2 HD

UNCOOLED LWIR THERMAL ZOOM LENS OPTIONS:

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

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

The Jaegar EVO2 HD is a high performance, 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 options up to 20-2400mm. The EVO2 range employs the latest 12µm thermal technology which has push autofocus capabilities as standard.

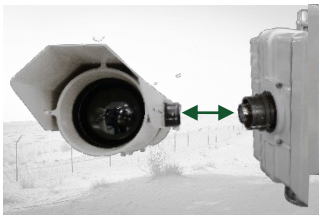
Combining advanced motor drive technology along with harmonic drive gears, all Jaegar camera platforms are able to position our longest-range sensors accurately and quickly. The Jaegar benefits from a fixed through shaft, which can enable payloads such as a RADAR to be mounted directly above the PT director.

The Jaegar'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
- 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
- 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

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

HIGH ACCURACY
Designed for long range surveillance applications

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UNCOOLED LWIR THERMAL ZOOM LENS CAMERAS

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

THERMAL SENSOR	JPT-EV02-HD-75-W	JPT-EV02-HD-150-W	JPT-EV02-HD-225-W
Focal Length	25mm to 75mm	30mm to 150mm	25mm to 225mm
Horizontal FOV	35.9° (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 4× (0.1 steps)		
Focus	Push autofocus, manual		
Detector Type	Uncooled VOx microbolometer, ≤50mK (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 (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	Yes (cost option)
Other Features	Defog, digital noise reduction	
Housing Weight	Typically 14Kg / 30.9lb	Typically 17Kg / 37.4lb
Housing Size (mm)	L572 x W258 x H231	L800 x W258 x H231

JAEGER PAN AND TILT UNIT (PTU)	
Pan Range / Velocity	360° continuous / 0.002° up to 100.0° per second
Tilt Range / Velocity	-90° to +90° / 0.002° up 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
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	Yes
PTU Weight	22kg / 48.5lb (excluding mounts, through shaft, payloads) (payload capacity 50kg)
PTU Size (mm)	H434 x W343x D343 (excluding mounts, through shaft 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 48VDC (36-72VDC)
System Power Consumption	Typical: 60W Peak: 170W (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 Ultra Low Light Sensor	**16.7mm to 2000mm (21.2° W to 0.23° T)** 1/1.9" CMOS sensor (2.38P), 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)** 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 (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), long range acoustic hailer (up to 2km), digital magnetic compass, GPS, SWIR sensors, LRF (laser range finders) up to 20km
Storage	Up to 64GB in total via SD/MMC (32GB available per channel when using thermal and visible / 2x cameras)
Aux Connectors (4 slots)	Power outputs - 12vDC, 6A / 24vDC, 15A / 48vDC, 10A Network output – Cat5e, 10/100 Base T Antenna connections – cellular, GPS, Wi-Fi, IP radio, GPS compass
Top Mount	Top mount extension / plate (for RADAR or top mount payload)

PLEASE CONTACT US FOR A SPECIFIC CONFIGURATION

Specifications may be subject to change without notice
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VISION & MOTION CONTROL