

# JAEGAR SEARCHER

## COOLED MWIR THERMAL ZOOM LENS OPTIONS:

- 15mm to 300mm
- 35mm to 690mm
- 45mm to 900mm



Above: Jaegar Searcher 45-900mm.  
Other models will vary.

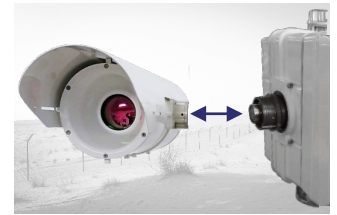
The Jaegar Searcher is a high performance, multi sensor platform which utilises long range cooled MWIR thermal sensors with a range of zoom lenses up to 45-900mm, alongside a HD visible sensor with a 16.7-1000mm lens (2000mm with 2x extender on).

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 24.1km (human) and 31.1km (vehicle)
- Cooled MWIR thermal sensors with zoom lens options up to 45-900mm
- HD visible sensor with a 16.7-1000mm zoom lens (up to 2000mm /120x zoom with 2x extender on)
- 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 levels of camera positioning accuracy: 0.0002°
- Absolute feedback, virtually zero backlash with automatic self position correction
- Unique cable managed rapid release mechanism with 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



### THROUGH SHAFT

Enables fixed payloads to be mounted above the PT Director



### MOBILE DEPLOYMENTS

Suitable for mobile and vehicle mounted applications

\* Ranges are based upon 50% probability on a MODTRAN standard atmosphere. Detailed NVIPM calculation notes available upon request. Based on the SEARCHER-900.



# JAEGAR SEARCHER

## COOLED MWIR THERMAL ZOOM LENS CAMERAS



### THERMAL SENSOR - 640 x 512, 15µm PIXEL PITCH

Part Code	SEARCHER-300	SEARCHER-690	SEARCHER-900
Focal Length	15mm to 300mm	35mm to 690mm	45mm to 900mm
Field of View	35.5° (W) to 1.83° (T)	15.6° (W) to 0.8° (T)	12.2° (W) to 0.61° (T)
Optical Zoom	20x, Motorised	19.7x, Motorised	20x, Motorised
F Number	F4.0		
Sensitivity	<25 mK (NETd) at room temperature		
Detector Type	T2SL HOT; Stirling cycle, integrated [20,000hrs]; Cool down time <10 Minutes, 6 minutes typical		
Resolution	15µm, 640 x 512		
Spectral Band	3.6 to 4.5µm (MWIR)		
Frequency	60Hz		
Focus	Push autofocus, manual		
Digital Zoom	4x		
Image Stabilisation	Yes, electronic		
Image Processing	AGC, CLAHE, LAP		
Image Control	Noise reduction, sharpen, alpha-blend. Palettes: Black-hot, white-hot, user colour palettes		
Housing Weight	Typically 12Kg / 26.4lb	Typically 11Kg / 24.2lb	Typically 18.2Kg / 40.1lb
Housing Size (mm)	L572 x W258 x H226	L521 x W254x H231	L607 x W320x H328

### HD VISIBLE SENSOR

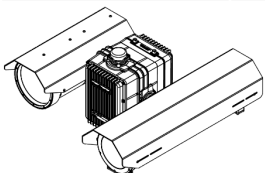
Focal Length	16.7mm to 1000mm (up to 2000mm with [x2] extender)
Image Sensor	1/1.9" CMOS Sensor (2.38 MP) full HD 1080p (1920 x 1080)
F-Number	F3.5 to F16 (up to F32 with [x2] extender)
Horizontal FOV	21.2° (W) to 0.45° (T) (up to 0.23° (T) with x2 extender)
Optical Zoom	60x, Motorised (up to 120x with [x2] extender)
Digital Zoom	-
Focus	Push autofocus, manual
Image Stabilisation	Yes (cost options) [optical or 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	De-fog, digital noise reduction
Housing Weight	Typically 17Kg / 37.4lb
Housing Size (mm)	L800 x W258x H231

### JAEGAR HIGH POWERED PTU (PAN & TILT UNIT)

Pan Range / Velocity	360° continuous / 0.002° - 100.0° per second
Tilt Range / Velocity	-90° -to +90° / 0.002° - 100.0° per second
Accuracy	0.0002° / 0.0035 mRad
Repeatability	0.0002° / 0.0035 mRad
Actuation	Custom stepper motors
Speed Control	Zoom dependant speed control (subject to payload)
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)

### PART CODES

JPT-H-SEARCHER-300-W	Jaegar Searcher 300 – High powered PT, with a 640x512, 15µm, 60Hz, 15-300mm, F4.0 thermal camera and a HD, 16.7-1000mm (60x optical zoom lens) video camera, white colour
JPT-H-SEARCHER-690-W	Jaegar Searcher 690 – High powered PT, with a 640x512, 15µm, 60Hz, 35-690mm, F4.0 thermal camera and a HD, 16.7-1000mm (60x optical zoom lens) video camera, white colour
JPT-H-SEARCHER-900-W	Jaegar Searcher 900 – High powered PT, with a 640x512, 15µm, 60Hz, 45-900mm, F4.0 thermal camera and a HD, 16.7-1000mm (60x optical zoom lens) video camera, white colour
Options	All cable, ancillary and optional part numbers are available upon request



Above: Illustration of a SEARCHER-690 Platform

### IMAGE PRESENTATION

Video Output	IP, ONVIF, RTSP {Composite (PAL / NTSC) are cost options}
Video over IP	Integrated IP encoders provide simultaneous H.264 RSTP (H.265 optional) and ONVIF Profile-S

### TELEMETRY

Presets	127x Preset positions
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 including streaming of H.264 Video
RS485	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 aluminium, white powder marine grade paint finish (other colours are available upon request)
System Weight	51kg / 114lbs incl. payloads      50kg / 111lbs incl. payloads      60kg / 132lbs incl. payloads

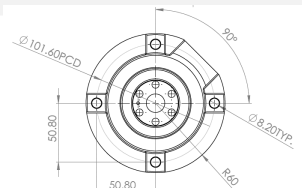
### ENVIRONMENTAL

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 Camera	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 (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)
Storage	Up to 64GB in total via SD/MMC (32GB available per channel if using thermal and video / 2x cameras)

Jaegar PT Platform Mounting



Specifications may be subject to change without notice.  
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