

# JAEGAR RANGER

HIGH PERFORMANCE PAN AND TILT UNIT  
HD LOW LIGHT VISIBLE ZOOM LENS SENSORS  
SD LWIR UNCOOLED THERMAL ZOOM LENS SENSORS



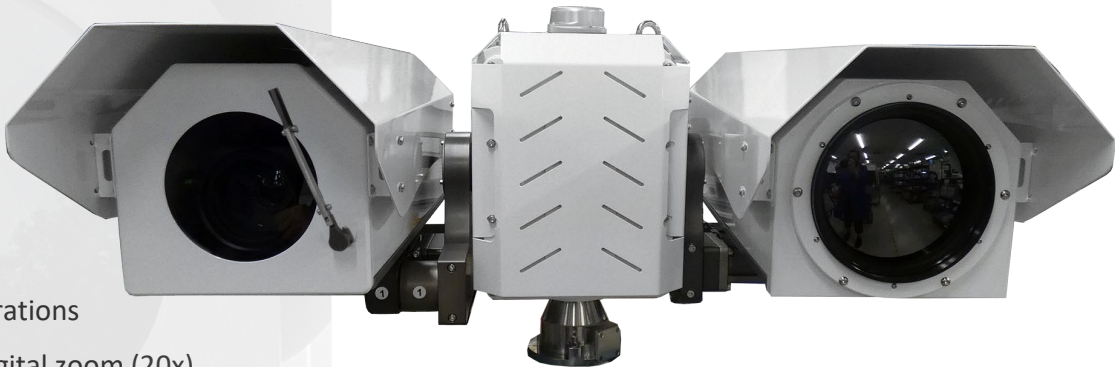
The JAEGAR RANGER EVO2 is a high performance, multi sensor platform which utilises long range uncooled LWIR thermal sensors with a range of zoom lens options up to 20-300mm, alongside the latest low light HD visible sensor with a 15-500mm zoom lens.

The **NexOS** EVO2 range employs the latest 12µm thermal sensor technology and has **NexOS** intelligent capabilities as standard.

Combining advanced motor control technology along with harmonic drive gears, all Jaegar camera platforms are able to position our longest-range sensors accurately and quickly. This is complimented with advanced **NexOS** features\* such as electronic image stabilisation, CLAHE, and advanced focusing capabilities.

### KEY FEATURES

- 640x512 12µm thermal sensors with zoom lens options up to 300mm
- HD visible sensor with a 15-500mm zoom lens
- **NexOS** intelligence allows advanced image processing and motor control
- **NexOS** Advanced Macros and Pelco Query Builder allow complex configurations
- Push, continuous and ROI autofocus, electronic image stabilisation and digital zoom (20x)
- 360° Continuous rotation with pan and tilt speeds between 0.001° and 200° per second
- High level of camera positioning accuracy: 0.0001° / 0.0017 mRad
- Unique cable managed, rapid release mechanism with precise bore sighting allowing a quicker installation in the field
- Ideally suited for single mast deployments such as mobile, border and maritime applications



Above: Typical Jaegar Ranger, HD visible camera wiper optional (models will vary)



**RUGGEDISED**  
Suitable for marine and extremely challenging environments



**HIGH ACCURACY**  
Designed for long range surveillance applications



**RAPID RELEASE MECHANISM**  
Allows quick changing and bore-sighting of payloads



**NEXT GENERATION**  
Unrivalled intelligence and hardware control from NexOS

### TECHNICAL SPECIFICATION

| THERMAL SENSORS                 |                                                                                                                                                                                                                                                            | JPTX-EVO2-225-W                        | JPTX-EVO2-300-W                                                                                                                                                                                            |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Focal Length                    | 25mm to 225mm                                                                                                                                                                                                                                              |                                        | 20mm to 300mm                                                                                                                                                                                              |
| Horizontal FOV                  | 17.6° (W) to 2.0° (T)                                                                                                                                                                                                                                      |                                        | 22.0° (W) to 1.5° (T)                                                                                                                                                                                      |
| F Number                        | F1.5                                                                                                                                                                                                                                                       |                                        | F1.5                                                                                                                                                                                                       |
| Optical Zoom (Continuous)       | 9x, Motorised                                                                                                                                                                                                                                              |                                        | 15x, Motorised                                                                                                                                                                                             |
| Digital Zoom                    | 20x                                                                                                                                                                                                                                                        |                                        |                                                                                                                                                                                                            |
| Focus                           | Push autofocus, continuous autofocus, continuous autofocus with automatic ROI, manual                                                                                                                                                                      |                                        |                                                                                                                                                                                                            |
| Detector Type                   | Uncooled VOx microbolometer, ≤20mK (at 20°C, F1.0), 60Hz, 12µm, 640 x 512                                                                                                                                                                                  |                                        |                                                                                                                                                                                                            |
| Spectral Band                   | 8 to 14µm (LWIR / 8 to 14µm)                                                                                                                                                                                                                               |                                        |                                                                                                                                                                                                            |
| Image Processing                | Correction (NUC), noise filtering, polarity control, Digital Detail Enhancement (DDE), 10x colour palettes (including white hot /black hot polarity)                                                                                                       |                                        |                                                                                                                                                                                                            |
| Housing Weight (Typical)        | 18.3kg / 40.3lb                                                                                                                                                                                                                                            |                                        | 25Kg / 55.1lb                                                                                                                                                                                              |
| Housing Size (Typical)          | L740 x W298 x H249mm                                                                                                                                                                                                                                       |                                        | L1000 x W319x H292mm                                                                                                                                                                                       |
| HD VISIBLE SENSOR               |                                                                                                                                                                                                                                                            |                                        |                                                                                                                                                                                                            |
| Focal Length                    | 15.2mm to 500mm                                                                                                                                                                                                                                            |                                        |                                                                                                                                                                                                            |
| Horizontal FOV                  | 23.42° (W) to 0.78° (T)                                                                                                                                                                                                                                    |                                        |                                                                                                                                                                                                            |
| F Number                        | F3.0 to F32                                                                                                                                                                                                                                                |                                        |                                                                                                                                                                                                            |
| Optical Zoom (Continuous)       | 33x, Motorised                                                                                                                                                                                                                                             |                                        |                                                                                                                                                                                                            |
| Digital Zoom                    | 20x                                                                                                                                                                                                                                                        |                                        |                                                                                                                                                                                                            |
| Focus                           | Push autofocus, continuous autofocus, continuous autofocus with automatic ROI, manual                                                                                                                                                                      |                                        |                                                                                                                                                                                                            |
| Image Sensor                    | 1/1.9" CMOS Sensor (2.38 MP), full HD 1080p (1920 x 1080)                                                                                                                                                                                                  |                                        |                                                                                                                                                                                                            |
| Min. Sensitivity                | Colour 0.05 lux F1.2 gain of up to 60dB / 0.005 lux F1.2 / AGC @ 42dB<br>Mono 0.002 lux F1.2 gain of up to 60dB / 0.0002 lux F1.2 / AGC @ 42dB (accumulation 25 times)                                                                                     |                                        |                                                                                                                                                                                                            |
| Image Processing                | Digital noise reduction                                                                                                                                                                                                                                    |                                        |                                                                                                                                                                                                            |
| Housing Weight (Typical)        | 17.5kg / 38.6lb                                                                                                                                                                                                                                            |                                        |                                                                                                                                                                                                            |
| Housing Size (Typical)          | L740 x W298 x H249mm                                                                                                                                                                                                                                       |                                        |                                                                                                                                                                                                            |
| NexOS*                          |                                                                                                                                                                                                                                                            |                                        |                                                                                                                                                                                                            |
| NexOS Core (Standard)           | NexOS Core includes:<br>Push autofocus, continuous autofocus, continuous autofocus with automatic ROI, digital zoom, image contrast enhancements, CLAHE, de-fog, electronic image stabilisation (2D), static overlays, remote upgrades, remote diagnostics |                                        |                                                                                                                                                                                                            |
| JAEGAR PAN AND TILT UNIT (PTU)* |                                                                                                                                                                                                                                                            | ELECTRICAL AND MECHANICAL              |                                                                                                                                                                                                            |
| Pan Range / Velocity            | 360° Continuous; 0.001° - 200° per second**                                                                                                                                                                                                                | Video Output                           | RTSP, ONVIF from PTU (H.264, H.265 and MJPEG)                                                                                                                                                              |
| Tilt Range / Velocity           | -90° to +90°; 0.001° - 200° per second**                                                                                                                                                                                                                   | Ethernet                               | Command and control of all functions including streaming of H.264, H.265 and MJPEG video                                                                                                                   |
| Accuracy                        | 0.0001° / 0.0017 mRad                                                                                                                                                                                                                                      | RS485                                  | Pelco D command and control with custom procedural extensions                                                                                                                                              |
| Repeatability                   | 0.0001° / 0.0017 mRad                                                                                                                                                                                                                                      | Boresight with Rapid Release Mechanism | Anodised aluminium, quick release bracket with micro adjustment boresight mechanism                                                                                                                        |
| Actuation                       | Custom stepper motors                                                                                                                                                                                                                                      | Input Voltage                          | 48VDC                                                                                                                                                                                                      |
| Speed Control                   | Zoom dependent speed control (subject to payload*)                                                                                                                                                                                                         | Housing Material and Finish            | Anodised aluminum, thermal and visible sensors (only) are nitrogen purged, hydrophobic coating on visible sensor window, white powder marine grade paint finish (other colours are available upon request) |
| Presets Types                   | Procedural, Positional                                                                                                                                                                                                                                     | IP Rating                              | IP67                                                                                                                                                                                                       |
| Number of Presets               | 255                                                                                                                                                                                                                                                        | Temperature Range                      | -32°C (-25°F) up to 65°C (149°F) (-40°C/°F with optional Cold Weather Pack)                                                                                                                                |
| Protocols                       | Pelco D, ONVIF Profile-S (custom available on request)                                                                                                                                                                                                     |                                        |                                                                                                                                                                                                            |
| Interface                       | RS485, ONVIF Profile-S, Serial <> IP                                                                                                                                                                                                                       |                                        |                                                                                                                                                                                                            |
| Positioning                     | Absolute positioning feedback                                                                                                                                                                                                                              |                                        |                                                                                                                                                                                                            |
| Through Shaft                   | Yes                                                                                                                                                                                                                                                        |                                        |                                                                                                                                                                                                            |
| PTU Weight (Typical)            | 26.4kg / 58.2lb (excluding mounts, brackets, through shaft and payloads)                                                                                                                                                                                   |                                        |                                                                                                                                                                                                            |
| PTU Size (Typical)              | H434 x W275 x D336mm (excluding mounts, brackets, through shaft and payloads)                                                                                                                                                                              |                                        |                                                                                                                                                                                                            |
| OPTIONALLY AVAILABLE            |                                                                                                                                                                                                                                                            |                                        |                                                                                                                                                                                                            |
| Wiper                           |                                                                                                                                                                                                                                                            | Wiper for visible sensor               |                                                                                                                                                                                                            |

\* Subject to payload types.  
\*\* Maximum pan and tilts speeds may be restricted depending on the payload types.

PLEASE CONTACT US FOR A SPECIFIC CONFIGURATION

Specifications may be subject to change without notice 06/12/24 V4.3

