

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.

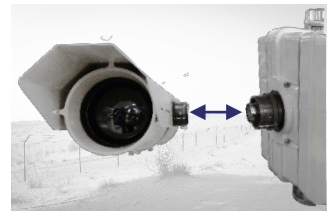
The Jaegar Ranger LR is a high performance, multi sensor platform which utilises advanced LR uncooled thermal sensors with zoom lenses up to 40-300mm alongside a HD visible sensor with a 15.2-500mm lens. The LR range is designed to bridge the gap between cooled and uncooled thermal sensor performance. 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 12 μ m, 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



RAPID RELEASE MECHANISM

Allows quick changing of payloads



THROUGH SHAFT

Enables fixed payloads to be mounted above the PT Director



12 μ m SENSOR

Longer range performance from an uncooled thermal

* Ranges are based upon 50% probability on a MODTRAN standard atmosphere.
Detailed NVIPM calculation notes available upon request. Based on the RANGER-LR-300.

LR UNCOOLED LWIR THERMAL ZOOM LENS CAMERAS

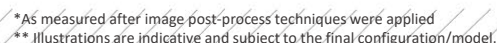


| Part Code | RANGER-LR-150 | RANGER-LR-225 | RANGER-LR-300 |
|--------------------------|---|-----------------------|-----------------------|
| Focal Length | 25 to 150mm | 25 to 225mm | 40 to 300mm |
| Field of View | 17.5° (W) to 3.0° (T) | 17.5° (W) to 2.0° (T) | 11.0° (W) to 1.5° (T) |
| Optical 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 (Typical) | 12Kg / 26.4lb | | 18.3Kg / 40.4lb |
| Housing Size (Typical) | L572 x W258 x H226mm | | L580 x W282 x H257mm |

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| 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 (Typical) | 14Kg / 30.9lb |
| Housing Size (Typical) | L572x W258x H231mm |

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| 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 (Typical) | 28kg / 61.8lb (excl. mounts, through shaft and payloads) (payload capacity 50kg) |
| PTU Size (Typical) | H434 x W343x D343mm (excluding mounts, through shaft and payloads) |

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|-----------------------|---|
| JPT-H-RANGER-LR-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 |
| JPT-H-RANGER-LR-225-W | 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-300-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 |
| Options | All cable, ancillary and optional part numbers are available upon request |



REACH RoHS

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| 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 |

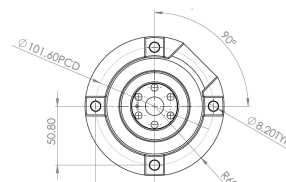
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| Presets | 127x Preset positions, 16x preset tours |
| Protocols | Pelco D, Pelco D Extended, ONVIF Profile S |
| Interface | RS485, ONVIF Profile-S, Serial <> IP |
| Positioning | Absolute positioning feedback |

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|----------|---|
| Ethernet | Command and control of all functions incl. streaming of H.264 Video (ONVIF) |
| RS485 | Command and control of all functions and firmware upgrade |

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| Input Voltage | Nominal 48VDC (36-72VDC) |
| Power Consumption | Typical: 60W, Peak: 170W (including thermal and visible sensor payloads) |
| Housing Material | Anodised aluminum (sunshields are iridized aluminum), white powder marine grade paint finish (other colours are available upon request) |

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| IP Rating | IP67 |
| Temperature Range | -30°C (-22°F) up to 65°C (149°F) (-40°C with optional heater) |

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| 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 0.000000001 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) |



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VISION & MOTION CONTROL

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