

The Eye of the PUMA



Detection possible threats

Military missions must be carried out, but not at any cost. Protecting the soldier is paramount. A prerequisite is optimal vision under all conditions, by day and by night. This is the only way to reliably avoid being turned from hunter to hunted.



Keeping the overview in sight:
Protecting man and material,
carrying out missions safely!



We make it visible.

The sight systems for the PUMA Infantry Fighting Vehicle are optimised for application in modern armoured vehicles with long-range armament. This provides a long range identification under all environmental conditions. Hunter/killer functionality is provided by:

- Commander Sight PERI RTWL-B with stabilised 360° observation, direct optical view, thermal camera with eyesafe laser rangefinder based on an optical parametric oscillator (OPO), two CCD cameras, and digital electronics;
- Gunner Sight WAO optronic targeting system with zoom CCD camera with stabilised targeting line, thermal camera, eyesafe laser rangefinder, and digital electronics.



Communication to the PUMA is provided via CAN bus. An integrated BITE system ensures high reliability and low maintenance.

Technical Specifications

| | Commander Sight | Gunner Sight |
|-----------------------------------|--|---|
| | PERI RTWL-B | WAO |
| Field of regard Azimuth | n x 360° | -5° ... +5° |
| Elevation | -15° ... +45° | -15° ... +45° |
| Positioning speed AZ/EL | ≥ 1 rad/s | ≥ 1 rad/s |
| Stabilisation quality | ≤ 80 μrad | ≤ 40 μrad |
| Resolution of angular measurement | ≥ 18-bit | ≥ 18-bit |
| Resolution of optical direct view | > 6,000,000 pixels | |
| Field of view | 2.8° x 2.1°; 11.3° x 8.5°; 22.2° x 16.7° | 2.8° x 2.1°; 7.2° x 5.4°; 22.2° x 16.7° |
| | ATTICA thermal camera | ATTICA thermal camera |
| Wavelength | 7.5–10 μm | 7.5–10 μm |
| Detector | 384 x 288 pixels | 384 x 288 pixels |
| Field of view | adapted to PERI RTWL-B | adapted to WAO |
| | LDM 38 laser rangefinder | LDM 38 laser rangefinder |
| Wavelength | 1570 nm, eyesafe | 1570 nm, eyesafe |
| Display range | 40,000 m | 40,000 m |
| Accuracy | ≤ 5 m | ≤ 5 m |
| Pulse frequency | 1 Hz continuously/3 Hz burst | 1 Hz continuously/3 Hz burst |
| | | MZ3 CCD camera |
| Field of view | | adapted to WAO |
| Magnification change-over time | | ≤ 0.9 s |
| Targeting line stability (focus) | | ≤ 0.05 mrad (NFOV) |