

SENTINEL SMLRF

Multi-Functional LONG RANGE THERMAL BINOCULAR



Display

The SENTINEL SMLRF is a mission-critical, multi-functional thermal binocular system engineered for elite tactical units operating in complex and high-risk environments. Equipped with high-resolution uncooled LWIR and SWIR sensors, and an integrated eye-safe laser rangefinder rated for distances up to 10,000 meters, the SENTINEL SMLRF delivers unmatched long-range detection and engagement capabilities. It enables operators to identify human targets at up to 2.3 km and vehicles at 6.3 km—through smoke, fog, or camouflage—ensuring 24/7 operational effectiveness. The system integrates GPS positioning, a digital magnetic compass, and multiple image fusion modes to provide real-time, in-view data on target location, azimuth, and inclination. Onboard video and photo recording, silent operation, and versatile connectivity options enhance mission documentation and communication. Built to MIL-STD 810 standards, it operates in extreme conditions and withstands rugged use in the field. Compact, reliable, and highly mobile, the SENTINEL SMLRF delivers the advanced situational awareness and precision targeting essential to today's most demanding tactical missions.

Infrared sensor (LWIR)	
Detector type	Vox
Resolution (pixels)	640 x 512
Spectrum (µm)	8-14
Pitch size (µm)	12
NETD (mK) @F1.0	<40
Frequency (Hz)	50
Objective Focal Length (mm)	50 @F1.0
Field of View (°)	8.8 x 7.0
Non-uniformity correction	Auto
Detection/Recognition of tank target (km)	6.3/1.6
Detection/ Recognition of human target (km)	2.3/0.6
Zoom	1-4x
SWIR	
Objective Focal Length (mm)	50
Resolution (pixels)	640x512
Frequency (Hz)	50
Field of View (°)	8.8 x 7
Zoom	1-4x
Spectrum (µm)	0.9 - 1.7
LRF	
Laser type	Semiconductor laser, Class I
Laser wavelength (µm)	1,550
Detection range (m)	20 - 5,000, (20 - 10,000 Optional)
Ranging accuracy (m)	±2
GPS	
Type	GPS, Galileo (GNSS)
Target locating error	±5M (target<1km)
Format	Lat/Long and MGRS
Fusion	
Combining day and thermal image	Yes
Fusion modes	At least 3 modes of image combining

SENTINEL SMLRF

Multi-Functional LONG RANGE THERMAL BINOCULAR



Magnetic compass	
Azimuth resolution/accuracy	1° / 1°
Elevation resolution/accuracy	1° / 1°
Elevation range	+/- 80°
Mechanics and environmental	
Interpupillary distance (mm)	64
Eyeiece diopter adjustment (dpt)	±5
Internal video & photo recording	Yes
Connectivity	Power input, RS232 (remote control), USB (output videos and images), PAL video
Continuous working time (hours)	4
Dimensions with eyepiece (mm)	170 x 210 x 90
Weight without battery (kg)	Max 2kg
Power	Internal battery: rechargeable 4x18650, DC power supply 12VDC
Temperature range (°C)	-30 to +60
Storage temperature range (°C)	-35 to +65
Waterproof	MIL STD 810 (1m for 30 min)
Mechanical interface/mounts	1/4" tripod mount

DELIVERY SET

Supplied with the following standard accessories:

- Soft carrying case
- 4x 18650 batteries
- Li-ion battery USB charger
- Hard carrying case
- Operation manual
- Multi-use cable



105 Sparks Ave., Toronto, ON, M2H 2S5 Canada
newconsales@newcon-optik.com, www.newcon-optik.com

Specifications, visuals, descriptions, and technical data are non-binding and may be changed without notice - 2024-01-06
©2024 Newcon Optik - All rights reserved