



GUIDE

Triple Light, Total Insight

TL Leo Series

Multispectral Fusion
Thermal Monocular

Introduction

The TL Series is the first multispectral fusion thermal monocular of Guide Sensmart whose all-in-one design meets the needs of all-day and all-weather observation. Equipped with a 12μm high-end thermal sensor, 1920×1080 CMOS sensor and 1920×1080 AMOLED display, the TL Series offers significantly sharp and richly contrasted images with an integrated laser rangefinder with up to 600m accurate ranging. Integrated with a built-in GPS, laser rangefinder, and gyroscope, target latitude and longitude, target distance, and device angle information can be obtained for quick aiming.

Features

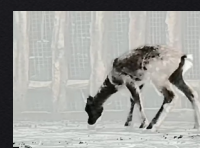
- Integrated thermal and night vision for all-day and all-weather observation
- 12μm HD thermal sensor and AMOLED display for reduced visual fatigue
- Built-in laser rangefinder for 600m accurate target detection
- Built-in GPS for accurate target positioning
- Combined multispectral viewing modes for a more fast observation
- Removable single 18650 battery for 5 hours of battery life
- OTA firmware upgrade by connecting to the APP
- IP67 encapsulation, rugged and durable



Visible



IR



Fusion 1



Fusion 2

Specifications

Product model	TL430	TL450	TL630	TL650
Thermal				
Type	Uncooled VOx Infrared Detector, 8 to 14 μ m			
Resolution	400×300, 12 μ m		640×480, 12 μ m	
NETD	≤30mK			
Frame rate	50Hz			
Focal length	35mm, F1.0	50mm, F1.2	35mm, F1.0	50mm, F1.2
Field of view	7.8°×5.9°	5.5°×4.1°	12.4°×9.3°	8.7°×6.6°
Optical zoom	2.3x	3.3x	1.5x	2.0x
Digital zoom	1x, 2x, 4x		1x, 2x, 4x, 8x	
Focus	Manual			
Digital				
Type	CMOS			
Resolution	1920×1080, 4 μ m			
Focal length	22mm, F1.5		17mm, F1.4	
Display				
Display type	0.39" AMOLED			
Resolution	1920×1080			
Eyepiece	Exit pupil distance≥15 mm; Diopter: -4 to +4; Zoom: 13.8x			
Video output	Analog video			
Range Performance				
Detection range	1000m	1400m	1000m	1400m
Hardware				
Laser rangefinder	Max. measuring range: 600m			
Others	GPS, Compass, Gyroscope, Bluetooth			
Functions				
Image modes	IR, Visible, Fusion 1, Fusion 2, Fusion 3			
Scene modes	IR: Enhanced, Highlight and Natural; Visible: Day, Night and Low-light			
Color palettes	IR: White Hot, Black Hot, Red Hot, Iron Red, Blue Hot			
Recording function	Photo/Video			
WIFI	2.4 G			
Supported Application	TargetIR			
Firmware OTA	Upgrade device firmware via app connection			
Others	PIP, Hot spot tracking, Target localization			
Power				
Battery type	Single, replaceable 18650 battery			
Operating time	≥ 5 hours			
Interface				
USB	USB Type-C			
Mechanical interface	UNC ¼"-20 (Tripod mounting), Mechanical expansion interface			
System				
Language settings	English, Russian, German, French, Italian, Spanish, Japanese, Korean, Polish			
Memory capacity	64 GB			
Environmental				
Operating temperature	-20 °C to 50 °C			
Storage temperature	-40 °C to 60 °C			
Humidity	10 % to 95 % non-condensing			
Shock	30 G at 11 ms half sine pulse (as per IEC60068-2-27)			
Drop	1 m			
Encapsulation	IP67			
Certification	IP67, FCC, CE, RoHS, EAC, WEEE, un38.3, IEC 60825-1 Class 2			
Physical				
Weight	≤530g	≤567g	≤530g	≤567g
Size	170×70×90mm	190×70×90mm	180×70×90mm	190×70×90mm
Standard	A device, lens cover and lanyard, Wrist strap, Eye mask, Battery charger, single 18650 battery, USB Type-C cable, Quick use guide, Warranty card			
Optional	Bluetooth remote control, 18650 battery			