



# Guide Sensmart TS Series Thermal Rifle Scope Owner's Manual

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**Guide Sensmart TS Series Thermal Rifle Scope**



## Introduce

TS Series is an economical civilian infrared thermal imaging riflescope that includes 25mm/35mm/50mm objective lenses. With 400×300 pixel TEC metal-encapsulated thermal detector, it can detect longer range and capture vivid images of higher clarity. TS thermal riflescope also features with compact size, waterproof and dustproof, high shock resistance, rugged and durable, which performs impressively in any harsh weather.



## Features and Benefits

- Excellent imaging performance, with 17m@400×300 TEC metal encapsulated thermal detector for crisper images.
- Rugged and durable, IP67 degree of protection, high shock resistance, no fears of harsh weather.
- Zoom in on the center of the reticle, and the relative position of the aiming point and the reticle remains unchanged to ensure the aiming accuracy.
- 50Hz high frame rate, ensuring capture smooth and vivid image during fast motion of observer or object of observation.
- 1024×768 resolution AMOLED eyepieces, colorful and detailed images
- Battery-mount user-friendly design, both side can be mounted, change battery easily in darkness.

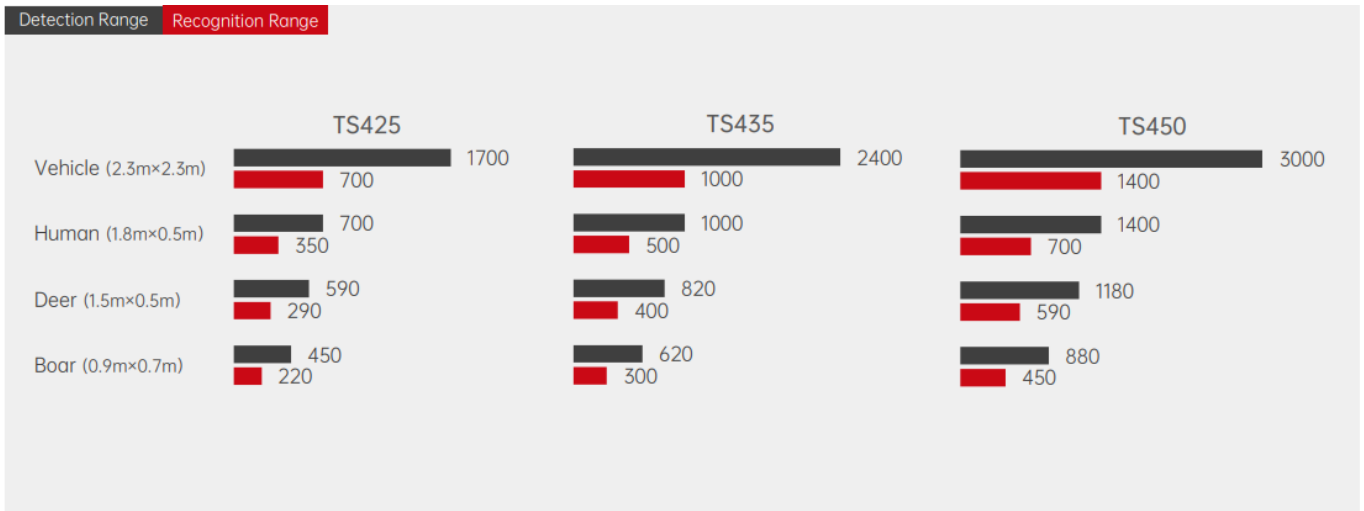
## Application

- Outdoor Observing
- Law Enforcement

## Specifications

Model	TS425	TS435	TS450
Infrared detector			
Detector type	VOx		
Detector resolution and pitch	384 × 288, 17 μm		
Spectral range	8 to 14 μm		
NETD	≤50mk @ F1 25°C		
Lens			
Focal length	25 mm; F1.1	35 mm; F1.2	50 mm; F1.2
Focus	Manual		
Field of angle	14.9° × 11.2°	10.7° × 8.0°	7.5° × 5.6°
Frame rate			
Output frame frequency	50 Hz		
Zoom			
Optical zoom	1.6x	2.3x	3.3x
Digital zoom	1x, 2x and 4x		
Power			
Battery type	Single, replaceable 18650 battery		
Battery life	≥ 4.5 hours		
Interface			
Video interface	LEMO		
External expansion	External Display		
Mechanical interface	Picatinny		
Display			
Display type	0.39" OLED		
Resolution	1024 × 768		
Eyepiece	Exit pupil distance ≥ 48 mm Exit pupil diameter ≥ 8 mm Diopter ± 4		
Eyepiece zoom	14x		
Video output	Analog video		
Button			
Button functions	Power / Roller		
Functions			

Screen brightness adjustment	10 levels	
Detector brightness adjustment	10 levels	
Detector contrast adjustment	10 levels	
Color palettes	White Hot, Black Hot, Red Hot 1, Red Hot 2, Red Hot 3, Green Hot, Blue Hot	
Hot spot tracking	Available	
Compensation modes	Automatic, shutter and scene compensation	
Zero calibration	Available	
Line type	10 types	
Line brightness	10 levels	
Line color	Black / white	
Automatic shutdown	Closed, 15, 30 or 60 mins	
Language settings	Chinese or English	
System		
PIP	Upper left, Upper middle, Upper right, Closed, PIP with division line	
Restore to default	Available	
Start up	18 s	
Environmental		
Operating temperature range	-40°C to 50°C	
Storage temperature range	-40°C to 60°C	
Humidity	10 % to 95 % non-condensing	
Shock	500 G at 1 ms half sine pulse (as per IEC60068-2-27)	
Vibration	10 Hz – 150 Hz – 10 Hz 0.15 mm (as per IEC60068-2-6)	
Encapsulation	IP67	
Certification	IP67, CE, RoHS	
Physical		
Weight	≤660g	≤720g
Size (L × W × H)	230 × 90 × 75 mm	250 × 90 × 75 mm
Standard	Lens cap, battery charger, Picatinny rail base, video cable, manual, battery, carry bag	



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Technical parameters are subject to change without notice. For the latest information, please visit our website:  
[www.guideir.com](http://www.guideir.com)

**Documents / Resources**



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 TS Series Thermal Rifle Scope, TS Series, Thermal Rifle Scope, Rifle Scope, Scope

**References**

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