



## TFN AS Series Dual-Tube Laser Rangefinder Binoculars



### Product Introduction

The TFN AS Series combines the superior optical performance of a high-end binocular with the precision of a professional laser rangefinder. Designed for outdoor professionals and enthusiasts, these 8x42 binoculars deliver bright, sharp, and stable images even in low light, thanks to fully multi-coated BAK4 prisms and a 42mm objective lens. With measurement ranges from 5 to 1800 meters (AS18 model) and  $\pm 1\text{m}$  accuracy, you can instantly know the exact distance to any target – no reflector needed. The auto power-off system extends battery life, while the rugged, ergonomic body ensures reliable operation in harsh conditions. Perfect for power line inspection, forestry, hunting, and geological surveys.

### Product Key Selling Points

Integrated Optical Excellence & Laser Precision

The TFN AS Series is not just a rangefinder nor just a binocular – it is a true 2-in-1 professional tool. It features an advanced optical system with 8x magnification, 42mm objective lenses, and fully multi-coated BAK4 prisms, delivering crisp, bright, and high-contrast images even at dusk. Meanwhile, the built-in laser rangefinder measures distances up to 1800 meters with  $\pm 1\text{m}$  accuracy. You no longer need to estimate distances or carry two separate devices – this all-in-one solution saves weight, time, and hassle on every mission.

Eye-Safe Laser & Reflector-Free Operation

Safety and convenience are paramount in the field. The TFN AS Series uses a low-power laser that is completely safe for human eyes, so you can confidently measure distances near people or animals without concern. Unlike traditional systems that require a reflective prism or cooperative target, this rangefinder works on any object – trees, rocks, buildings, or game. Point, press, and get an instant reading displayed inside the viewfinder. Whether you are surveying rugged terrain or inspecting power lines, you get fast, reliable data with zero setup.

Long Range & High Accuracy for Professional Tasks

With a maximum measurement range of 1800 meters (AS18 model) and a margin of error of just  $\pm 1$  meter, the TFN AS Series delivers precise distance data for critical applications. Land



surveyors, utility inspectors, and forestry professionals can rely on consistent readings even over long distances. The display shows results clearly in the field of view, and you can switch between meters and yards with a simple press. This level of accuracy empowers you to plan routes, assess hazards, and execute projects with confidence – no more guesswork or manual pacing.

All-Weather Durability & Ergonomic Design

The TFN AS Series is built to withstand extreme environments. It operates flawlessly in temperatures from -20° C to +60° C, making it suitable for arctic expeditions or desert fieldwork. The rugged housing provides a secure grip, and the central focusing knob allows quick, precise adjustments. The auto power-off system conserves the single CR2-3V lithium battery when not in use, giving you months of standby time. Additionally, the binocular is tripod-mountable for extended observation sessions. Wherever your work takes you – from mountain tops to construction sites – this device performs.

Superior Low-Light Performance & Wide Field of View

Early morning and late evening are often the most critical times for observation, but limited light can ruin visibility. The TFN AS Series overcomes this challenge with a 42mm objective lens, 7mm exit pupil, and 16mm eye relief, delivering a bright image even in deep twilight. The 7° field of view (approx. 122m at 1000m) lets you scan large areas quickly without constantly moving the binoculars. Birdwatchers, hunters, and security personnel will appreciate how this rangefinder binocular performs when the sun is low – you get sharp, usable images and accurate range readings when other devices fail.

### Product Specifications

Parameter	Specificaion
Measuring Range	AS12: 5-1200m; AS15: 5-1500m; AS18: 5-1800m
Range Accuracy	± 1m
Magnification	8x
Objective Lens Diameter	42mm
Field of View	7°
Exit Pupil Diameter	7mm
Eye Relief (Eye Point)	16mm
Rangefinder Display	In-view LCD (field of view display)
Focusing Method	Central shaft focusing
Meter/Yard Display	Switchable
Operating Temperature	-20° C to +60° C
Product Dimensions	173 x 135 x 64 mm
Product Weight	1279 g
Battery Type	CR2-3V lithium battery
Tripod Mount	Supported
Accessories Included	Carrying case, strap, manual, warranty card, lens cleaning cloth



## Product Features

### Section 1: Instant, Accurate Distance Measurement Without Reflectors

Traditional laser rangefinders often require a reflective prism or cooperative target to return a signal, which is impractical for many real-world applications. The TFN AS Series uses advanced time-of-flight technology that works on any natural or artificial surface – from tree bark to concrete walls, from animal hides to rock faces. Simply aim, press the measure button, and within a fraction of a second the exact distance (5 to 1800 meters) appears on the LCD inside your viewfinder. The  $\pm 1\text{m}$  accuracy ensures you can rely on the data for critical decisions such as setting up safety perimeters, calculating timber volume, or positioning utility poles. For professionals who previously had to carry a separate laser rangefinder and binoculars, this integration eliminates the need to swap tools, speeding up workflow and reducing fatigue. The eye-safe laser also means you can operate near teammates or wildlife without risk. No reflectors, no calibration – just point and know.

### Section 2: High-Definition Optics for All-Light Conditions

Poor lighting is the enemy of fieldwork. The TFN AS Series tackles this with an optical system designed for clarity from dawn to dusk. The 42mm objective lens gathers significantly more light than standard 32mm binoculars, while the BAK4 prisms and fully multi-coated lenses maximize light transmission and minimize internal reflection. The result is an exceptionally bright, sharp, and color-accurate image even when the sun is low or clouds are thick. The 7mm exit pupil matches the human eye's dilation in dark conditions, so you won't see black rings or lose peripheral details. With a 16mm eye relief, eyeglass wearers can enjoy the full field of view comfortably. Whether you are tracking game at dusk, inspecting power lines at sunrise, or surveying forest health under canopy cover, these binoculars provide the optical performance you need to see fine details – and they do it while also giving you laser precision distance readings. No more squinting or second-guessing.

### Section 3: Auto Power-Off System for Extended Field Use

Battery failure in the middle of a remote job is a professional's nightmare. The TFN AS Series addresses this with an intelligent auto power-off system that shuts down the laser rangefinder after a period of inactivity, dramatically extending battery life. When you are using the device primarily as binoculars for extended observation, the rangefinder remains off until you press the measure button – instantly waking up and delivering a reading. This means a single CR2-3V lithium battery can last for months of typical field use. Additionally, the display shows a low-battery warning well before the power runs out, so you can replace it proactively. For professionals working in off-grid locations – such as geological surveyors in remote mountains or forest rangers patrolling vast areas – this reliability is invaluable. You can focus on your mission without constantly worrying about carrying boxes of spare batteries or losing function at the critical moment.

### Section 4: Robust Build for Harsh Environments

Outdoor professionals expose their gear to dust, rain, temperature swings, and rough handling. The TFN AS Series is engineered to survive these conditions. Its durable polycarbonate housing,



reinforced with rubber armor, absorbs shock and provides a non-slip grip even when wearing gloves. The internal components are sealed to resist moisture and dust ingress, allowing operation in fog, light rain, and dusty jobsites. The wide operating temperature range of -20° C to +60° C means the device remains functional in arctic cold or desert heat – no LCD freezing, no lens fogging, no mechanical sticking. The central focus knob is large and tactile, enabling easy adjustment with cold or wet fingers. For power line inspectors working at high altitudes, hunters tracking game in snowy forests, or construction managers on dusty sites, this ruggedness translates directly to fewer equipment failures and lower replacement costs. It’s a tool you can trust when the conditions are at their worst.

### Section 5: Tripod-Mountable Design for Long-Term Observation

Holding binoculars steady for hours causes arm fatigue and image shake, which leads to missed details and inaccurate measurements. The TFN AS Series solves this with a standard 1/4"-20 tripod mount (compatible with most photography and surveying tripods). When you need to observe a specific area for extended periods – such as monitoring wildlife behavior, tracking approaching weather fronts, or watching a construction site – simply mount the device on a tripod. This eliminates hand shake, allowing you to scan with the 8x magnification smoothly and read the rangefinder display precisely. The 7° field of view becomes fully usable without drifting, and you can share the view with colleagues easily. For security personnel conducting surveillance, ornithologists counting bird populations, or engineers monitoring remote infrastructure, tripod mounting transforms the TFN AS Series from a handheld tool into a semi-fixed observation station. It also reduces physical strain, letting you work longer and more effectively.

### Applications & Pain Points Solved

Scenario	Customer Pain Point	How AS Series Solves It
Power Line & Utility Inspection	Inspectors need to measure distances between poles, sag heights, and clearance from vegetation without climbing. Carrying separate binoculars and rangefinder is cumbersome, and estimates are unreliable for safety reports.	The integrated binocular-rangefinder provides exact distances (up to 1800m) with $\pm 1m$ accuracy while delivering a clear view of conductors and hardware. One-handed operation allows simultaneous observation and measurement. Auto power-off extends battery life during long patrols.
Forestry & Tree Height/Diameter Measurement	Foresters struggle to estimate stand density, plot boundaries, and harvest volumes from a distance. Manual pacing is time-consuming and inaccurate on rough terrain.	Point at any tree or boundary marker – no reflector needed. Measure distance instantly, then use the optical zoom to assess health and species. Combine with a clinometer (sold separately) to calculate tree height. The durable build survives moisture, mud, and drops.
Hunting & Wildlife Observation	Hunters need to range game quietly without spooking animals. Standard rangefinders require	The TFN AS Series measures in complete silence. Press the button, read the distance inside the viewfinder, and keep



	switching devices, and binoculars alone don't provide distance for ethical shot placement or trajectory compensation.	your eyes on the target. Switch between meters and yards. Low-light optics excel at dawn/dusk – peak activity times. No laser reflection visible to game.
Geological Survey & Mining	Geologists mapping outcrops or mine pit walls face long distances, uneven terrain, and the need for rapid data collection. Carrying heavy, separate tools slows progress.	Lightweight (1279g) all-in-one device reduces pack weight. Measure from 5m to 1800m on rock, soil, or vegetation. Operates from -20° C to +60° C for year-round fieldwork. Tripod mount allows precise repeat measurements for mapping. Wide field of view helps scan cliffs efficiently.
Construction & Civil Engineering	Site managers need quick distance checks for layout, material staging, and safety zones. Traditional tape measures or total stations are overkill for rough estimates, and separate binoculars don't provide data.	Instant point-and-measure function saves time during site walks. Verify setbacks, crane clearance, and pile positions without unpacking heavy equipment. The LCD display works in bright sunlight. Rugged design survives dust and accidental drops. Replace manual pacing with documented accuracy.

## Q&A

Q1: Can the TFN AS Series measure distance through glass, rain, or heavy fog?

A1: The laser rangefinder works best on solid, non-reflective surfaces. It can measure through clean glass with minimal error, but rain, fog, or snow may reduce maximum range due to laser beam scattering. For best results in adverse weather, use the device under 500 meters. The binocular optics remain functional in all conditions – you can still observe clearly while waiting for weather to clear.

Q2: Does this device require any special certification or license to operate?

A2: No. The TFN AS Series uses a Class 1 eye-safe laser (low power) and complies with international safety standards including IEC 60825-1. It is legal for civilian use worldwide without special training or permits. However, always avoid deliberately pointing the laser at aircraft or vehicles.

Q3: How long does the CR2-3V battery last, and can I use rechargeable batteries?

A3: Under normal use (200-300 measurements per week), a single CR2-3V lithium battery lasts approximately 6-12 months thanks to the auto power-off system. You can use rechargeable CR2 batteries, but note that their nominal voltage (3.0V or 3.7V) must match the specification – some rechargeables have lower capacity and may drain faster. We recommend high-quality lithium primary batteries for extreme cold conditions.



Q4: Is the TFN AS Series waterproof? Can I submerge it?

A4: The device is weather-resistant (IPX4 equivalent), meaning it can withstand rain, splashes, and humidity. It is NOT designed for submersion. Do not immerse in water or use underwater. For heavy rain, the included carrying case provides extra protection. Always dry the device before storing.

Q5: How do I switch between meters and yards? What is displayed besides distance?

A5: Press and hold the measurement button for 3 seconds to toggle between meters (m) and yards (y). The in-viewfinder LCD shows the numeric distance value only – it does not display angle, height, or speed. For angle compensation, you would need a separate inclinometer unit. The simplicity ensures fast, distraction-free readings for the majority of field tasks.

### Package Contents

Item	Quantity
TFN AS Series Laser Rangefinder Binoculars (model as ordered: AS12 / AS15 / AS18)	1 unit
CR2-3V Lithium Battery (pre-installed)	1 piece
Premium Carrying Case (soft padded case with belt loop)	1 piece
Adjustable Neck/Wrist Strap	1 piece
User Manual	1 copy
Warranty Card (1-year manufacturer' s warranty)	1 card
Microfiber Lens Cleaning Cloth	1 piece

Note: Tripod and additional lens accessories are sold separately.

For bulk orders, customization, or OEM inquiries, please contact our B2B sales team.