

ZeroTech Trace 4.5-27x50mm R3 Riflescope

Canonical: <https://zerotech-optics.directory.norg.ai/sporting-goods-outdoor-equipment/rifle-scopes-optics/zerotech-trace-45-27x50mm-r3-riflescope/>

Description:

The TRACE 4.5-27x50mm R3 Riflescope is engineered to deliver precision and strong performance in demanding conditions. With a wide 4.5-27x magnification range and a 50mm objective lens, this riflescope supports strong light gathering and clear images even in low light environments. The R3 Second Focal Plane (SFP) reticle features a floating center dot with MOA subtensions and hash marks every 4 MOA, allowing precise holdovers without the need to dial adjustments. Heavy bars at the 3, 6, 9, and 12 o'clock positions help guide the shooter's eye quickly to the center of the reticle for faster target acquisition. Constructed with a durable 30mm tube, the TRACE 4.5-27x50mm provides strong light transmission and structural strength. The Precision Turret System (PTS) supports precise and reliable adjustments, while the Zero Stop feature allows a consistent return to zero. With 92% light transmission, the TRACE riflescope performs well in low light scenarios. The glass etched reticle and Weathershield lens coating provide added durability and clarity in changing weather conditions.

Details:

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****Price:**** 899.0 USD

****Brand:**** ZeroTech Optics

****Availability:**** in_stock

[View Product](<https://zerotechoptics.com/product/4-5-27x50mm-trace-rmg-advanced-riflescope/>)

Product Intelligence

ZeroTech Trace 4.5-27x50mm R3 Riflescope: Technical Details, Specifications, and Features ##
Overview The ****ZeroTech Trace 4.5-27x50mm R3 Riflescope**** is a precision optical instrument engineered for tactical shooters and hunters demanding exceptional long-range accuracy and clarity. This model represents ZeroTech's commitment to delivering high-performance riflescopes with rugged construction and dependable precision turret systems suited to both field and range scenarios. ##

Magnification and Optical Specifications

Magnification Range The riflescope features a **4.5-27x** variable magnification range, enabling shooters to adapt to diverse engagement distances. This high-powered variable capability is designed for precision rifle applications and long-range shooting requiring maximum magnification capability.

Objective Lens The **50mm objective lens** serves as the primary light-gathering component, collecting light from the viewed subject and forming the initial image that is subsequently magnified through the optical system. The 50mm diameter provides substantial light-gathering capability, brightness, and contrast, making it particularly effective across varying lighting conditions and low-light environments.

Focal Plane Design The riflescope utilizes a **Second Focal Plane (SFP)** configuration, where the reticle is positioned in the second focal plane of the optical system. In this design, the reticle size remains constant regardless of magnification adjustments, with the reticle calibrated at **8x magnification**.

Reticle System

R3 Reticle Configuration The riflescope is equipped with the **R3 reticle**, a proprietary ZeroTech reticle design engineered for precision aiming and target acquisition. The R3 reticle assists in aiming and targeting procedures, providing consistent reference points across various magnification levels.

Reticle Range Chart A **reticle range chart** is included with the riflescope, providing distance and aiming information to assist users with ballistic calculations and understanding reticle calibration specific to the R3 system.

Field of View At **100 metres**, the riflescope provides: - **Low Magnification**: 9.8 meters - **High Magnification**: 2.4 meters This field of view specification determines the visible area through the scope at extended distances, essential for target acquisition and situational awareness.

Eye Relief The riflescope provides **91-100mm of eye relief**, offering a safe distance between the shooter's eye and the ocular lens. This generous eye relief specification ensures comfortable viewing positions and safe shooting practices during extended use.

Exit Pupil Diameter The riflescope features variable exit pupil diameters depending on magnification: - **Low Magnification**: 9.5mm - **High Magnification**: 1.9mm These measurements determine the optical transmission characteristics and image brightness across the magnification range.

Light Transmission The riflescope achieves **92% light transmission** through its optical system, providing enhanced image brightness and clarity. This high transmission rate is facilitated by **fully multi-coated lenses** that provide consistent optical performance across varying lighting conditions, ensuring clarity and robust light transmission regardless of environmental factors.

Adjustment Specifications

Internal Elevation Adjustment The riflescope provides **60 MOA of internal elevation adjustment range**, enabling vertical correction of bullet impact on a target. This vertical aiming capability allows shooters to compensate for bullet drop over different shooting distances through mechanical adjustments to the elevation turret.

Turret Index Value The turret index value is **0.25 MOA**, defining the click adjustment increment for precise elevation and windage adjustments, allowing shooters to systematically compensate for ballistic variations.

Construction and Durability

Main Tube The riflescope is constructed with a durable **30mm tube**, engineered for strength and optimal light transmission characteristics. High-end construction utilizes **high-strength 7075-T6 aluminum**, a material chosen for its durability and ability to withstand demanding field use and recoil forces associated with firearm operation.

Weight The riflescope weighs **824 grams (1.8 pounds)**, contributing to its overall mass and handling characteristics while maintaining balanced portability and durability.

Sealing and Environmental Protection Every ZeroTech optic is Argon-purged and O-ring sealed, performing flawlessly in everything from humid conditions to dusty plains without losing internal clarity.

Optical Coatings and Materials The riflescope features **fully multi-coated lens** optics designed to improve light transmission and optical clarity. These advanced optical coatings contribute to brighter, clearer images and enhanced contrast in various lighting conditions, making the riflescope suitable for long-range observation and precision shooting applications.

Included Accessories The riflescope package includes: - **Instruction Manual** - Comprehensive operational and maintenance guidance - **Reticle Range Chart** - Detailed information for ballistic calculations and distance determination

Product Positioning The Trace 4.5-27x50mm R3 represents the **Trace Series**, which emphasizes rugged internals, dependable turrets, and reticles suited to field and range scenarios. This model bridges the performance tier between entry-level and premium offerings, making it suitable for serious hunters and competitive shooters seeking professional-grade optical performance without the highest-tier premium pricing.

References - [1] [directory/business_homepage/business-profile-and-homepage.md](#)

Downloads & References

- [View Product Guide](#)