

# ZeroTech Optics USA - Precision Riflescopes, Binoculars & Red Dots

Canonical: <https://zerotech-optics.directory.norg.ai/sports-outdoors/hunting-shooting-optics/zerotech-optics-usa-precision-riflescopes-binoculars-red-dots/>

## Description:

ZeroTech Optics USA has precision optics designed and built for the backcountry hunter with accuracy and clarity that will exceed your expectations. Featuring cutting-edge rifle scopes, binoculars, red dots, and spotting scopes with over 50 years of optics industry expertise. Multi-coated lenses, illuminated reticles, and world-class performance for hunters and shooters.

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**\*\*Price:\*\*** Available

**\*\*Brand:\*\*** ZeroTech Optics USA

[View Product](<https://store.zerotechoptics.com/p/4-20x50mm-r3-illuminated-vengeance-riflescope>)

## Product Intelligence

# ZeroTech Optics USA: Comprehensive Technical Overview ## Company Overview **\*\*ZeroTech Optics USA\*\*** is the official United States division and direct sales entity of ZeroTech Optics, an Australian precision optics manufacturer. Operating as both the authorized retailer and distribution channel for the US market, ZeroTech Optics USA enables customers to purchase optical products directly from the manufacturer through their official website and authorized dealer network. The parent company, ZeroTech International Pty Ltd, was founded in 2018 as a subsidiary of Tasco Sales (AUST) Pty Ltd—a company with over 50 years of optical expertise dating back to 1965. This heritage provides ZeroTech Optics with a foundation of specialized knowledge in precision optical manufacturing and engineering. --- ## Product Portfolio #### Riflescopes ZeroTech Optics USA manufactures and distributes several comprehensive rifle scope product lines designed for various shooting applications: **\*\*Thrive Series\*\*** - Entry to mid-level scopes featuring practical designs and accessible pricing for hunters and shooters. Models include the Thrive HD series with variants such as the Thrive HD 1-8x24 LPVO, Thrive HD 1-6x24, Thrive HD 3-9x40, and Thrive HD configurations up to 6-24x50. **\*\*Vengeance Series\*\*** - Mid-range performance scopes engineered for value-conscious shooters seeking advanced features. The lineup includes models such as the Vengeance 1-8x24 RAR LPVO, Vengeance 1-8x24 RAR FDE, Vengeance 3-12x40 R3, Vengeance 3-12x40 PHR 4, Vengeance 4-16x40 PHR 4 IR, Vengeance 6-24x50 R3, and Vengeance 6-24x50 R3 IR. **\*\*Trace Series\*\*** - Professional-grade long-range riflescopes featuring advanced optical systems and precision engineering. Models include the Trace 3-18x50mm and Trace 4.5-27x50mm variants. **\*\*Trace Advanced Series\*\*** - Premium tactical riflescopes representing the pinnacle of ZeroTech's optical engineering, featuring premium Japanese

glass, advanced reticle systems, and precision turret mechanisms for demanding precision shooting and competitive applications. ### Binoculars ZeroTech Optics USA offers multiple binocular product lines designed for hunting, observation, and outdoor activities: \*\*Thrive HD Series\*\* - Mid-range binoculars including the THD1042 10x42mm and THD842 8x42mm models, designed for hunting and field observation. \*\*Vengeance Series\*\* - Value-focused binoculars featuring the VG842HD, VG1042, VG1050, and VG1050ED variants, engineered for outdoor enthusiasts and hunters. \*\*Compact Travel Binoculars\*\* - Waterproof and fogproof options including the THD825 8x25mm and THD1025 models for portable observation. \*\*Premium Lines\*\* - Including the Trace 15x56mm binoculars representing the company's premium binocular offerings. ### Red Dot Sights and Reflex Optics ZeroTech Optics manufactures advanced red dot and reflex sight systems for tactical and competitive shooting: \*\*Thrive HD Micro Reflex Sight\*\* (THDM21) - Featuring advanced shake-awake technology for automatic activation, 3 MOA red dot, and RMsC footprint compatibility. \*\*Thrive Reflex Sight 3 MOA\*\* - Standard reflex sight offering practical design and modern red dot technology. \*\*Thrive HD Red Dot Variants\*\* - Including green dot and multi-reticle options with various mount heights for flexible mounting configurations. \*\*TRACE Red Dot Optics\*\* - Including the TRACE RAS 1x25 Digital Red Dot Sight designed for demanding tactical applications. --- ## Technical Specifications and Features ### Optical Construction ZeroTech Optics riflescopes feature comprehensive technical specifications including: - \*\*Main Tube Diameter\*\*: Typically 30mm (standard), with some models featuring 34mm tube diameters for enhanced structural rigidity - \*\*Objective Lens Diameters\*\*: Ranging from 24mm to 56mm depending on magnification configuration and application - \*\*Magnification Ranges\*\*: From 1x (fixed) to 6x24x, 3x18x, 4x27x, and premium variants reaching 5x30x magnification ### Adjustment Capabilities Optical scopes include multiple precision adjustment mechanisms: - \*\*Elevation Adjustment\*\*: Internal elevation adjustments ranging from 50 MOA to 120 MOA depending on model - \*\*Windage Adjustment\*\*: Lateral windage correction for environmental compensation - \*\*Parallax Adjustment\*\*: Adjustable parallax ranging from 15 meters to infinity for focus optimization - \*\*Turret Index Value\*\*: Typically 0.5 MOA per click for precise mechanical adjustments - \*\*Illumination Systems\*\*: Multiple brightness settings (commonly 6 levels) for low-light visibility across various lighting conditions ### Optical Performance Specifications - \*\*Exit Pupil Diameter\*\*: Measurements documented as 13.6mm on low magnification and 3.4mm on high magnification for optimal light gathering - \*\*Eye Relief\*\*: Ranging from 82mm to 100mm depending on magnification configuration, providing comfortable viewing positioning - \*\*Field of View\*\*: Comprehensive measurements at 100 meters from 11.36m on low magnification to 2.96m on high magnification - \*\*Lens Coating\*\*: Fully Multi-Coated (FMC) or Fully Broadband Multi-Coated (FBMC) systems for enhanced light transmission and reduced glare ### Reticle Systems ZeroTech Optics manufactures proprietary reticle designs optimized for specific shooting applications: - \*\*RAR Reticle (Refined Accuracy Reticle)\*\* - MOA-based ranging system for precise elevation and windage holds - \*\*R3 Reticle\*\* - Second focal plane design enabling long-range holds without losing SFP advantages - \*\*RMG (Refined Mil Grid)\*\* - Advanced mil-based reticle for competitive shooting and precision work - \*\*PHR II Reticle\*\* - Precision hunting reticle for general hunting applications - \*\*LR Hunter Reticle\*\* - Long-range hunting design with mil-based ranging capabilities - \*\*Mildot Reticle\*\* - Tactical mil-based ranging reticle for ranging and distance estimation ### Focal Plane Options ZeroTech Optics manufactures both First Focal Plane (FFP) and Second Focal Plane (SFP) configurations: - \*\*FFP Models\*\* - Feature reticles that maintain constant size relative to target across all magnification settings, enabling accurate holds at any power - \*\*SFP Models\*\* - Calibrate reticles at specific magnification levels (typically 10x or mid-power), optimizing reticle appearance for general hunting applications ### Construction Standards All ZeroTech Optics riflescopes feature: - \*\*Argon Purging\*\* - Prevents internal fogging and moisture accumulation in extreme environmental conditions - \*\*O-Ring Sealing\*\* - Waterproof protection for operation in wet environments - \*\*Multi-Layer Lens Coating\*\* - Improves light transmission efficiency and reduces reflected glare - \*\*ED Glass\*\* (Select Models): Extra-low Dispersion glass in Thrive HD series for superior optical clarity - \*\*Japanese Optical Glass\*\* (Trace Advanced): Premium glass elements in professional-grade scopes --- ## Physical Specifications ### Weight Specifications Weight varies significantly across product lines based on magnification and objective lens diameter: \*\*Thrive HD Models\*\* - 1-8x24mm: 624 grams (22.0 ounces) - 1-6x24mm: 588 grams (20.7 ounces) - 3-9x40mm:

540 grams (19.0 ounces) - 4-16x50mm: 670 grams (23.6 ounces) - 6-24x50mm: 740 grams  
\*\*Vengeance Models:\*\* - 1-4x24 LPVO: 596 grams (21.02 ounces) - 1-8x24mm: 22 ounces -  
4-16x40mm: 614-645 grams (21.7-22.8 ounces) - 6-24x50mm: 698-709 grams (24.6-25.0 ounces)  
\*\*Trace Models:\*\* - 3-18x50mm: 817-825 grams (29.1 ounces/1.8 pounds) - 4.5-27x50mm: 824 grams  
(1.8 pounds) \*\*Red Dot Sights:\*\* - Thrive HD Reflex Sight: 88 grams (3.10 ounces) with battery - Thrive  
HD Micro Reflex Sight: Approximately 19 grams with battery - Thrive HD Green Dot Reflex Sight: 73  
grams (2.58 ounces) \*\*Binoculars:\*\* - Thrive HD series: 685-811 grams across configurations -  
Vengeance series: 588-751 grams depending on magnification - Trace ED 15x56mm: 1,520 grams ###  
Objective Outer Diameter Objective outer diameter specifications vary based on magnification  
configuration: - \*\*LPVO Models\*\* (1-4x24, 1-8x24): 30mm objective outer diameter - \*\*Standard  
Configurations\*\* (3-9x40): 47.6mm - \*\*Mid-Range\*\* (3-12x40): Approximately 47-51mm -  
\*\*Long-Range\*\* (4-16x50, 6-24x50): 57.5-58.5mm - \*\*Trace/Trace Advanced\*\*<sup>TM</sup>: 57.5-59mm for  
standard configurations ### Ocular Outer Diameter Eyepiece diameter specifications include: -  
\*\*Standard Measurement\*\*<sup>TM</sup>: 43.5mm (most common across Thrive HD and Trace variants) -  
\*\*Vengeance Variants\*\*<sup>TM</sup>: 42.5mm to 43.9mm depending on model - \*\*Alternative Measurements\*\*<sup>TM</sup>:  
40mm to 45mm across various configurations --- ## Warranty Coverage ZeroTech Optics USA  
products are backed by the \*\*Triple-A Lifetime Warranty\*\*<sup>TM</sup>, providing comprehensive protection: -  
\*\*Duration\*\*<sup>TM</sup>: Unconditional lifetime coverage without requiring proof of purchase - \*\*Coverage\*\*<sup>TM</sup>: Repair  
or replacement for all product failures and defects - \*\*Service Location\*\*<sup>TM</sup>: Sydney headquarters facility  
with in-house technical specialists - \*\*Transferability\*\*<sup>TM</sup>: Coverage transfers with the product, supporting  
secondhand purchases --- ## Conclusion ZeroTech Optics USA represents a comprehensive precision  
optics manufacturer offering riflescopes, binoculars, and red dot sights engineered for hunters,  
competitive shooters, and outdoor enthusiasts. The product portfolio spans entry-level to  
professional-grade equipment, featuring proprietary reticle systems, advanced optical technologies,  
and construction standards designed for performance in demanding environments. All products are  
supported by an industry-leading lifetime warranty reflecting the company's confidence in product  
durability and quality. ### References - [1] Business Profile and Homepage

## Downloads & References

- [Download Primary Spec Sheet](#)
- [Download Secondary Spec Sheet](#)
- [View Product Guide](#)