

QX500B1 · A COMPACT HOLOGRAPHIC OPTICAL SIGHT WITH A FOLDED OPTICAL PATH, A 1 MOA CENTRE DOT AND A 68 MOA RING FOR FAST BOTH-EYES-OPEN ACQUISITION

QX500B1 1x Holographic Optical Sight

A compact holographic optical sight with a folded optical path, a 1 MOA centre dot and a 68 MOA ring for fast both-eyes-open acquisition. The QX500B1 combines 20 daylight and 10 night-vision levels, 1,000 h runtime, a quick-detach Picatinny mount and a 1,200 G shock rating.



RETICLE

1 MOA dot + 68 MOA ring

RUNTIME

≥ 1,000 h

WINDOW

30 × 23 mm

SHOCK / INGRESS

1,200 g · IP67

QX500B1 at a glance

The QX500B1 is a compact holographic optical sight with a folded optical path and a wide viewing window. A holographic reticle is reconstructed at the window and remains aligned with the shooter’s eye, so the sight can be used with both eyes open while the target stays at its natural size and colour. A 1 MOA centre dot gives a precise aiming point; a surrounding 68 MOA ring brackets the target for fast close-range acquisition.

The housing is machined from aviation aluminium with a black hard-anodised finish and carries a Picatinny quick-detach mount with an adjustable tension lever. A three-button control pad selects 20 daylight and 10 night-vision brightness levels, and motion wake-up restores the reticle after the sight has been stationary. A single CR123A-size battery provides at least 1,000 hours of continuous operation at brightness level 5 and 25 °C ± 5 °C.

The QX500B1 is intended for close- to medium-range aiming on rifles, carbines, shotguns and other platforms fitted with a MIL-STD-1913 / Picatinny rail. It is an aiming aid: it does not magnify the target, it does not illuminate the target, and it does not replace safe firearm handling or marksmanship training.

Key features

- **Holographic imaging with a folded optical path** and a wide aiming window for both-eyes-open use.
- **1 MOA dot + 68 MOA ring reticle** for precision at distance and fast close-range framing.
- **20 daylight + 10 night-vision brightness levels.**
- **At least 1,000 h** of continuous operation at brightness level 5 and 25 °C ± 5 °C.
- **Motion wake-up** and automatic power-off after 4 h of continuous inactivity.
- **Low-battery indication** when the remaining capacity falls below 5 %.
- **Picatinny quick-detach mount** with a tension adjuster for a repeatable, shake-free fit.
- **Machined all-metal housing**, CNC-machined aviation aluminium, black hard anodised, IP67.
- **≤ 73 × 49 × 59 mm and ≤ 330 g** including the battery.
- **Shock and drop testing** stated at 1,200 g / 400 shocks and 1.22 m / 26 drops onto 8-ply plywood.

Technical specifications

Values are transcribed from the QX500B1 controlled user manual, revision v5 dated 18 October 2026. Values are controlled acceptance limits under the corresponding test conditions. This page is a product reference, not an independent test report or certification.

Optical

PARAMETER	VALUE	CONDITION / NOTE
Magnification	1× (± 10 %)	—
Window size	(30 ± 1) × (23 ± 1) mm	—
Reticle	1 MOA dot + 68 MOA ring	—
Effective distance	≥ 100 m	Test-condition value; not a guarantee of hit probability
Parallax error	≤ 2 MOA	At 100 m over the central half of the field of view
Light source wavelength	650 nm	—

Power and electronics

PARAMETER	VALUE	CONDITION / NOTE
Power supply	1 × CR123A-size battery	—

PARAMETER	VALUE	CONDITION / NOTE
Voltage compatibility	3.0 V, or approved 3.7 V rechargeable	Use the same size; do not mix chemistries
Continuous operating time	≥ 1,000 h	Brightness level 5, 25 °C ± 5 °C
Daylight brightness	20 levels	—
Night-vision brightness	10 levels	—
Motion wake-up	Provided	—
Auto power-off	After 4 h of continuous inactivity	—
Low-battery indication	Reticle flashes below 5 % capacity	—

Mechanical and mount

PARAMETER	VALUE	CONDITION / NOTE
Housing material	Aviation aluminium; CNC machined	Black hard-anodised finish
Mount interface	Picatinny quick-detach	—
Adjustment range	Elevation and windage ≥ ± 40 MOA each	—
Click value	Nominal 0.5 MOA, ± 15 %	—
Zero shift	≤ 1 mil	Including repeated mounting and removal in the same rail slot
Sight height	38 mm	—

Physical and environmental

PARAMETER	VALUE	CONDITION / NOTE
Overall dimensions	≤ 73 × 49 × 59 mm (tolerance ≤ ± 5 mm)	—
Weight	≤ 330 g including the battery	—
Operating temperature	−30 °C ± 2 °C to +55 °C ± 2 °C	—
Storage temperature	−40 °C ± 2 °C to +70 °C ± 2 °C	Specification range, not a routine warehouse recommendation
Shock test	1,200 g, 400 shocks; zero shift ≤ 3 MOA	—
Package drop test	1.22 m, 26 drops onto 8-ply plywood	—
Ingress protection	IP67; 1.0 ± 0.1 m / 0.5 h	Battery cover correctly fitted and tightened; not for diving or high-pressure washing
Storage life	≥ 10 years excluding battery	—

How a holographic sight works

A holographic sight records a holographic optical element that reconstructs the reticle when illuminated by a compact light source. The reconstructed reticle appears at the window and remains aligned with the shooter’s eye across the viewing area. Because the reticle is formed optically rather than projected as a simple LED dot on a tilted lens, the window can present a wide, clean aiming image.

The QX500B1 uses a folded optical path to keep the housing compact. The 1 MOA dot supports precise aiming at distance, while the 68 MOA ring provides a large reference for fast close-range acquisition. The reticle is illuminated at 650 nm and is available in 20 daylight and 10 night-vision levels.

Holographic reconstruction is an optical principle, not a claim that the sight is immune to parallax, zero shift or environmental effects. The model-specific limits are listed in the specification table, including parallax at 100 m over the central half of the field of view and zero shift after repeated mounting.

Performance conditions and limits

- **Operating time** is quoted at brightness level 5 and $25\text{ °C} \pm 5\text{ °C}$. Higher brightness, low temperature and repeated motion wake-up reduce runtime.
- **Effective distance** is a test-condition value, not a guarantee of hit probability. Usable distance depends on the target, light conditions and the shooter.
- **Parallax error** is specified at 100 m over the central half of the field of view; it is not a claim of zero parallax at every distance and eye position.
- **Zero shift** is specified as ≤ 1 mil including repeated mounting and removal when the sight is remounted in the same rail slot. A different slot or host requires re-confirmation.
- **IP67** is verified at 1.0 ± 0.1 m for 0.5 h with the battery cover correctly fitted and tightened. It is not a diving or high-pressure-washing rating.
- **Shock and drop** values are stated test results. They are not a guarantee for every host, mount, ammunition load or installation.

Intended use and application scenarios

The QX500B1 is intended for close- to medium-range aiming on rifles, carbines, shotguns and other platforms fitted with a MIL-STD-1913 / Picatinny rail. It is an aiming aid only: it does not magnify, it does not illuminate the target and it does not replace safe firearm handling.

- **Fast close-range acquisition** with the 68 MOA ring and both-eyes-open viewing.
- **Precision at distance** with the 1 MOA centre dot.
- **Day and night-vision use** through 20 daylight and 10 night-vision brightness levels.
- **Rifle, carbine and shotgun platforms** with a Picatinny quick-detach mount.
- **Sport shooting, hunting where lawful, training and professional use.** The product is a firearm accessory; the buyer and user are responsible for compliance with all applicable laws.

Application examples describe configuration possibilities, not a guarantee of hit probability, legality in a particular jurisdiction or suitability for a specific host. Confirm local law and range rules before use.

Mounting, power and configuration

The QX500B1 fits a MIL-STD-1913 / Picatinny rail with its quick-detach mount and adjustable tension lever. Confirm that the rail and mount are mechanically sound, that the lever is fully seated and locked, and that the sight cannot move by hand before use. The 38 mm sight height should be checked against the host's stock, cheek weld and any magnifier or clip-on.

Power is supplied by one CR123A-size battery: either a 3.0 V primary cell or an approved 3.7 V rechargeable cell of the same size. Never charge a non-rechargeable CR123A cell. The battery compartment cover is part of the IP67 seal and must be fully closed and correctly seated. The supplied manual gives the complete mounting, zeroing, button, brightness and inspection procedure; this page intentionally does not reproduce operating instructions.

Confirm the reticle, brightness mode and zero for the intended environment, and re-check zero after removal, impact or mount changes.

Care, storage and safety

- Clean the housing exterior with a soft cloth lightly dampened with water or mild soapy water, then dry it. Avoid abrasives and high-pressure water.
- Keep the unit clean and dry, protected from impacts, sunlight and corrosive substances. Remove the battery for long storage.
- Do not disassemble or modify the optical or electronic assemblies. A visibly damaged unit should not remain in use; seek qualified service assessment.
- Before mounting, adjusting or servicing the sight, make sure the firearm is unloaded, the chamber is empty, the magazine is removed and the muzzle is pointed in a safe direction. Wear eye and hearing protection when shooting.
- Do not point the sight at the Sun, lasers, welding equipment or other high-intensity sources. Do not use it as solar-viewing equipment.
- Keep batteries away from fire, high temperature and water. Do not disassemble, crush, short-circuit or modify cells. Do not dispose of lithium cells with household waste.

Ordering, stock and dispatch

Prices below are published B2B unit prices in USD, shipping included to the address entered at checkout. Insurance, import duties, taxes and clearance fees are excluded. The server reconfirms the selected quantity tier before PayPal approval; no prior quotation or PI is required for eligible online orders.

QUANTITY	UNIT PRICE (USD)	DISPATCH AFTER VERIFIED PAYMENT
1–10 pcs	569	1–100 pcs: stock basis 100 pcs; dispatch within 7 working days
11–100 pcs	499	1–100 pcs: stock basis 100 pcs; dispatch within 7 working days
101–300 pcs	469	101–500 pcs: 45 working days
301–1,000 pcs	399	501+ pcs: 60 working days
1,001+ pcs	299	501+ pcs: 60 working days

Dispatch days are working days counted from verified payment. The stock basis is 100 pcs for the in-stock band. Larger quantities are produced to order. Shipping is included to the shipping address entered at checkout; the terms shown in the cart and order confirmation govern the accepted order.

Frequently asked questions

▼ What is the difference between the QX500B1 and a conventional red-dot sight?

The QX500B1 uses a folded holographic optical path to reconstruct its reticle at the window. It offers a 1 MOA dot plus a 68 MOA ring, 20 daylight and 10 night-vision levels, motion wake-up and a quick-detach Picatinny mount. Both are aiming aids; the choice depends on reticle preference, window size and host configuration.

▼ What reticle does it use?

A 1 MOA centre dot surrounded by a 68 MOA ring. The dot supports precision; the ring provides a large reference for fast close-range acquisition.

▼ Is it parallax-free?

The specified parallax error is ≤ 2 MOA at 100 m over the central half of the field of view. That is a bounded specification, not a claim of zero parallax at every distance and eye position.

▼ How stable is zero after removing and remounting?

Zero shift is specified as ≤ 1 mil including repeated mounting and removal when the sight is remounted in the same rail slot. A different slot or host requires re-confirmation.

▼ What battery does it use?

One CR123A-size battery: a 3.0 V primary cell or an approved 3.7 V rechargeable cell of the same size. Never charge a non-rechargeable CR123A cell, and do not mix chemistries.

▼ How long does the battery last?

At least 1,000 hours at brightness level 5 and $25\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$. Higher brightness, low temperature and repeated motion wake-up reduce runtime.

▼ Does it have night-vision settings?

Yes. There are 20 daylight and 10 night-vision brightness levels. Compatibility depends on the specific night-vision device and configuration.

▼ What mount does it use?

A Picatinny quick-detach mount with an adjustable tension lever. Sight height is 38 mm.

▼ What are the adjustment range and click value?

Elevation and windage $\geq \pm 40$ MOA each, with a nominal 0.5 MOA click value ($\pm 15\%$).

▼ How durable is it?

The stated shock test is 1,200 g for 400 shocks with zero shift ≤ 3 MOA, and the package drop test is 1.22 m for 26 drops onto 8-ply plywood. These are test-condition values, not a guarantee for every installation.

▼ What does IP67 mean here?

IP67 is stated as verified at 1.0 ± 0.1 m for 0.5 h with the battery cover correctly fitted and tightened. It is not a diving or high-pressure-washing rating. IEC 60529 defines the IP code; citing the standard does not certify this product.

▼ What are the operating and storage temperatures?

Operating: $-30\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ to $+55\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$. Storage: $-40\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$. The storage range is a specification range, not a routine warehouse recommendation.

▼ What is the warranty?

ERDI TECH LTD warrants the QX500B1 against defects in material and workmanship under normal use and maintenance for two years from the date of delivery. The warranty excludes normal wear, accident, misuse, improper storage, unauthorised disassembly or repair, non-approved battery or charger, and transport damage.

▼ What is the price and lead time?

Published unit prices are USD 569 (1–10), 499 (11–100), 469 (101–300), 399 (301–1,000) and 299 (1,001+), shipping included. In-stock quantities (1–100 pcs, stock basis 100 pcs) dispatch within 7 working days after verified payment; 101–500 pcs dispatch in 45 working days and 501+ pcs in 60 working days.

▼ Can I download the user manual?

The product datasheet on this page summarises the controlled model data. The complete user manual is supplied with the product; contact sales@erdicn.com for a configuration-matched copy or service documentation.

References and evidence boundaries

The model-specific values on this page come from the ERDI controlled product document. The external references below explain general optics, holography and safety science; they do not test, certify or endorse the QX500B1.

1. ERDI TECH LTD, *QX500B1 Holographic Optical Sight — User Manual*, revision v5, 18 October 2026, 19 pp. Model-specific source for the values and care statements on this page (not a public download).
2. RP Photonics Encyclopedia, R. Paschotta, [Holography](#). General holography terminology; not an assessment of this sight.
3. U.S. Patent [US 10,921,091 B2 — Holographic weapon sight](#). General patent context for holographic sight architecture; not a specification of the QX500B1.
4. NASA Science, [Infrared Waves](#). General background on infrared radiation; not a product specification.
5. International Electrotechnical Commission, [IEC 60529 — Degrees of protection provided by enclosures \(IP Code\)](#). Defines the IP code; does not certify this product.

6. International Organization for Standardization, ISO 9022-1:2016 — Optics and photonics — Environmental test methods — Part 1: Definitions, extent of testing. General environmental-test framework; no compliance claim is made.
7. U.S. Department of Defense, MIL-STD-810H — Environmental Engineering Considerations and Laboratory Tests. General environmental-test methods; no compliance claim is made.
8. International Commission on Non-Ionizing Radiation Protection, ICNIRP Guidelines on Limits of Exposure to Incoherent Visible and Infrared Radiation, *Health Physics* 105(1), 2013. General optical-radiation safety guidance; not a product classification.
9. European Union, Regulation (EU) 2021/821 — dual-use export controls. General export-control framework; not a legal determination for a particular transaction.

Warranty, compliance and contact

ERDI TECH LTD warrants the QX500B1 against defects in material and workmanship under normal use and maintenance for two years from the date of delivery. Keep the packaging, serial-number record and proof of purchase for any claim. The warranty excludes normal wear, accident, misuse, improper storage, unauthorised disassembly or repair, non-approved battery or charger, and transport damage.

The QX500B1 is a firearm accessory. The buyer and user are responsible for compliance with all applicable laws governing purchase, possession, transport and use. Firearm accessories and some optical products may be subject to export-control or dual-use rules; confirm the destination, end user and end use before export, re-export or transfer, and obtain any required licence. This page is not legal advice.

Technical support, spare parts and warranty service: sales@erdicn.com. Quote the model (QX500B1) and the serial number marked on the product.