NEWCON OPTIK

# TACTICAL EQUIPMENT CATALOGUE

LASER RANGEFINDERS · NIGHT VISION SYSTEMS · THERMAL IMAGING SYSTEMS · TACTICAL OPTICS

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*Newcon Optik is a world leader in the design and manufacture of laser rangefinders, image intensified night vision systems, thermal imagers, and a variety of other tactical optics. Headquartered in Toronto, Canada, Newcon Optik's dealer network is present on six continents and its products are relied upon by military, government and commercial customers in more than 70 countries. Since 1992 we have worked closely with our customers and partners to consistently produce technologically advanced products that meet and exceed the needs of the professionals they serve.*

## VISION IS OUR MISSION

*Page #:* ***3***

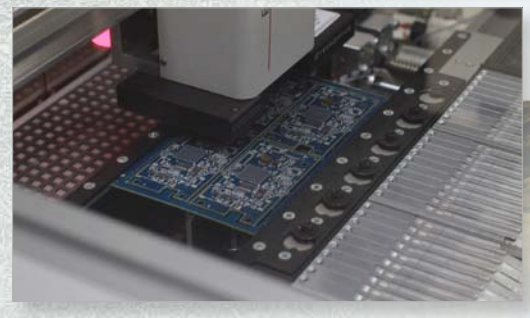
### LRB 12K
### LRB 12KNIGHT

*Page #:* ***12***

### AGBW SERIES

*Page #:* ***18***

### NVS 27



Page #: **25**

## SENTINEL LRF

Page #: **10**

## LRF MICRO

# TABLE OF CONTENTS

# LRB 12K · LRB 12KNIGHT

LONG RANGE LASER RANGEFINDER BINOCULARS
WITH GPS AND NIGHT CAPABILITY





Now Android™ compatible


LRB 12K - Display


LRB 12KNIGHT - Display at Night

The LRB 12K and LRB 12KNIGHT are built to outperform any handheld laser rangefinder binocular available today. These units pack a virtually endless set of performance features into a MIL-SPEC form factor that can handle anything professional operators can throw its way.

A 12,000m (NATO target) measuring range, built-in digital magnetic compass, built-in GPS receiver, crystal clear LED display, and in the LRB 12KNIGHT a Gen 3 night vision channel with minimum exportable FOM >1600 are combined into an invaluable force multiplier.

These units require virtually no maintenance, and very little operational training. Through USB and RS-232 interfaces, the LRB 12K and LRB 12KNIGHT can be operated remotely, have their stored data exported and communicate with external GPS systems and ballistic computers.

**Both units are newly upgraded to enable communication with Android™ based smartphones and tablets, allowing you to map and record target data for sharing or future use.**

| **Optics** | **LRB 12K** | **LRB 12KNIGHT** |
|---|---|---|
| Magnification (x) | 7 | 7 / 5 (night) |
| Objective lens diameter (mm) | 42 | 42 |
| Field of view (°) | 6 | 6 |
| Eye relief (mm) | 20 | 20 |
| Diopter adjustment range | ±5 | ±5 |
| Interpupillary distance (mm) | 58 - 72 | 58 - 72 |
| **Rangefinder** | | |
| Eye safety | Class 1, eye-safe | Class 1, eye-safe |
| Wavelength (nm) | 1550 | 1550 |
| Measuring distance range (m)* | 12,000 | 12,000 |
| Distance measurement accuracy (m) | ±1 | ±1 |
| Azimuth measurement accuracy (°/mils) | ±0.5 / 8.8 RMS | ±0.5 / 8.8 RMS |
| Inclination measurement accuracy (°/mils) | ±0.5 / 8.8 | ±0.5 / 8.8 |
| Speed detection | Yes | Yes |
| First/last target logic | Yes | Yes |
| Gating capability | Yes | Yes |
| Gating step (m) | ≥100 | ≥100 |
| Scan mode | Yes | Yes |
| Peripheral compatability | Android ™<br>PLGR, Bal Comp,PC,BT | Android ™<br>PLGR, Bal Comp, PC, BT |
| Distance between objects | Yes | Yes |
| Horizontal distance between objects | Yes | Yes |
| Azimuth difference between objects | Yes | Yes |
| Inclination difference between two objects | Yes | Yes |
| Height difference between objects | Yes | Yes |
| User GPS coordinates | Yes | Yes |
| Target GPS coordinates | Yes | Yes |

*2.3m x 2.3m NATO standard target

Adjustable Eye Pieces

Delivery Set

With Android™ data collection

| Display | LRB 12K | LRB 12KNIGHT |
|---|---|---|
| Meters/yards display | Yes | Yes |
| Computer output, type | RS-232, USB, NMEA | RS-232, USB, NMEA |
| Last 10 readings recall | Yes | Yes |
| Reticle pattern selection | Yes | Yes |
| Low battery indicator | Yes | Yes |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 213x178x87 | 213x178x87 |
| Weight without batteries (g) | 1,580 | 1,900 |
| Tripod mountable | Yes | Yes |
| Power Supply | 2CR5 non-magnetic | 2CR5 non-magnetic |
| Battery life (# of measurements) | 5,000 | 5,000 |
| Operating temperature range (°C) | -40 to +60 | -40 to +60 |
| Storage temperature range (°C) | -40 to +60 | -40 to +60 |
| Waterproofing | MIL-STD-810G | MIL-STD-810G |
| **IIT** | | |
| Generation | - | 3 |
| Photocathode material | - | GaAs |
| IIT resolution, minimum (lp/mm) | - | 64 |
| Signal to noise ratio, minimum | - | 24 |
| Auto-gating | - | Optional |

On TACT3-S Tripod

# LRB 6000CI · LRB 4000CI

LONG RANGE LASER RANGEFINDER BINOCULARS
NSN# (LRB 4000CI): 1240-20-001-964

LRB 6000CI

LRB 4000CI

Now Android™ compatible

| Optics | LRB 6000CI | LRB 4000CI |
|---|---|---|
| Magnification (x) | 7 | 7 |
| Objective lens diameter (mm) | 50 | 50 |
| Field of view (°) | 5 | 5 |
| Eye relief (mm) | 18 | 18 |
| Diopter adjustment range | ±4 | ±4 |
| Interpupillary distance (mm) | 58 - 72 | 58 - 72 |
| Rangefinder | | |
| Eye safety | Class 1, eye-safe | Class 1, eye-safe |
| Wavelength (nm) | 905 | 905 |
| Measuring distance range (m)* | 10 - 6,000 | 10 - 4,000 |
| Distance measurement accuracy (m) | ±1 | ±1 |
| Azimuth measurement accuracy (°/mils) | ±1 / 17 | ±1 / 17 |
| Inclination measurement accuracy (°/mils) | ±1 / 17 | ±1 / 17 |
| Speed detection | Yes | Yes |
| First/last target logic | Yes | Yes |
| Scan mode | Yes | Yes |
| Peripheral compatability | Android™ PLGR, Bal Comp, PC, BT | Android™ PLGR, Bal Comp, PC, BT |
| Display | | |
| Meters/yards display | Yes | Yes |
| Computer output, type | Bi-directional RS-232 | Bi-directional RS-232 |
| Last 10 readings recall | Yes | Yes |
| Reticle pattern selection | Yes | Yes |
| Low battery indicator | Yes | Yes |
| Mechanics, Electronics & Environmental | | |
| Dimensions (mm) | 210x150x80 | 210x150x80 |
| Weight without batteries (g) | 1,300 | 1,300 |
| Power supply | 9V non-magnetic | 9V non-magnetic |
| Battery life (# of measurements) | 5,000 | 5,000 |
| Operating temperature range (°C) | -25 to +50 | -25 to +50 |
| Storage temperature range (°C) | -30 to +55 | -30 to +55 |
| Waterproofing | MIL-STD-810G | MIL-STD-810G |

*2.3m x 2.3m NATO standard target

The LRB 6000CI and LRB 4000CI are ready to go to work providing dependable, accurate, distance, azimuth, inclination and speed measurements out to maximum distances of 6,000 and 4,000m respectively (NATO standard target). These 7x50 binoculars pack premium optical quality and Newcon Optik's most advanced rangefinding system into a housing that is built to last.

Both units are tripod mountable, compatible with night vision monocular systems, and built to stand up to the harsh conditions on the battlefield, training course or worksite. Both units are equipped with a computer output that allows immediate data acquisition by any system with a standard RS-232 interface, including various GPS models and ballistic computers.

**Both units are newly upgraded to enable communication with Android™ based smartphones and tablets, allowing you to map and record target data for sharing or future use.**

With Android™ data collection

LRB 6000CI - In the Field

Coupled with NVS 14 for Night Operation

# LRB 3000PRO

MEDIUM RANGE LASER RANGEFINDER BINOCULAR
NSN#: 1240-20-004-5448

| | |
|---|---|
| **Optics** | |
| Magnification (x) | 7 |
| Objective lens diameter (mm) | 40 |
| Field of view (°) | 6 |
| Eye relief (mm) | 18 |
| Diopter adjustment range | ±4 |
| Interpupillary distance (mm) | 60 - 70 |
| **Rangefinder** | |
| Eye safety | Class 1, eye-safe |
| Wavelength (nm) | 905 |
| Measuring distance range (m)* | 10 - 3,000 |
| Distance measurement accuracy (m) | ±1 |
| Azimuth measurement accuracy (°/mils) | ±2 / 35 |
| Inclination measurement accuracy (°/mils) | ±1 / 17 |
| Speed detection | Yes |
| First/last target logic | Yes |
| Scan mode | Yes |
| Peripheral compatability | - |
| **Display** | |
| Meters/yards display | Yes |
| Computer output, type | None |
| Last 10 readings recall | Yes |
| Reticle pattern selection | Yes |
| Target quality indicator | Yes |
| Low battery indicator | Yes |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 158x145x69 |
| Weight without batteries (g) | 970 |
| Power supply | 9V |
| Battery life (# of measurements) | 5,000 |
| Operating temperature range (°C) | -25 to +50 |
| Storage temperature range (°C) | -30 to +55 |
| Waterproofing | IP66 |

*2.3m x 2.3m NATO standard target

Designed with professional operators in mind, the LRB 3000PRO combines compact, clear 7x40 binocular optics with a 3,000 m (NATO target) ranging capability. A built-in digital magnetic compass, provides accurate azimuth and inclination readings and even target speed can be measured using this robust unit. With a matte black housing, rubberized body and scratch resistant optical surfaces, the LRB 3000PRO is built to perform and last in the harsh, foreboding environments in which our customers operate. The LRB 3000PRO is now available with an etched glass back-up reticle.

Optional Hard Case for LRB 3000PRO

9V Lithium
Non-Magnetic Battery

Adjustable Eyepieces

# LRM 3500CI

## MEDIUM RANGE LASER RANGEFINDER MONOCULAR

Now Android™ compatible

The LRM 3500CI is the most capable laser rangefinder monocular in production today. Proven internationally in virtually all climatic environments, the LRM 3500CI allows for target acquisition at longer distances with better reliability under a wide range of weather conditions. Users can observe distant objects with excellent image quality while measuring distance up to 3,500m (NATO target).

With a built-in digital magnetic compass, the LRM 3500CI accurately measures azimuth and inclination and is also capable of determining target speed. The LRM 3500CI is equipped with a computer output that allows immediate data acquisition by any system with a standard RS-232 interface, including various GPS models and ballistic computers. In combination with a NVS 14 series night vision monocular, the LRM 3500CI can operate 24 hours a day.

**The LRM 3500CI is newly upgraded to enable communication with Android™ based smartphones and tablets, allowing you to map and record target data for sharing or future use.**

| **Optics** | |
|---|---|
| Magnification (x) | 7 |
| Objective lens diameter (mm) | 25 |
| Field of view (°) | 8 |
| Eye relief (mm) | 15 |
| Diopter adjustment range | ±4 |
| **Rangefinder** | |
| Eye safety | Class 1, eye-safe |
| Wavelength (nm) | 905 |
| Measuring distance range (m)* | 10 - 3,500 |
| Distance measurement accuracy (m) | ±1 |
| Azimuth measurement accuracy (°/mils) | ±2 / 35 |
| Inclination measurement accuracy (°/mils) | ±1 / 17 |
| Speed detection | Yes |
| First/last target logic | Yes |
| Scan mode | Yes |
| **Display** | |
| Display type | Red LED |
| Meters/yards display | Yes |
| Computer output, type | RS-232 |
| Last 10 readings recall | Yes |
| Reticle pattern selection | Yes |
| Target quality indicator | Yes |
| Low battery indicator | Yes |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 127x125x60 |
| Weight without batteries (g) | 460 |
| Power supply | 9V non-magnetic |
| Battery life (# of measurements) | 5,000 |
| Operating temperature range (°C) | -25 to +50 |
| Storage temperature range (°C) | -30 to +55 |
| Waterproofing | IP66 |

*2.3m x 2.3m NATO standard target


Display

Optional hardcase

On TACT-3 tripod

With Android™ data collection

LASER RANGEFINDERS

# LRM SERIES

LASER RANGEFINDER MONOCULARS
NSN# (LRM 2200SI): 1240-20-009-0287

Newcon Optik's bestselling line of laser rangefinder monoculars combines industry-leading laser measurement technology, crystal clear optics and simple to use controls into a compact, sturdy package well suited to conditions in the field. The LRM 1500M is for users requiring basic functionality and high reliability. It features a true measurement range of 1,500m (NATO target) and can recall 10 measurements from device memory. The LRM 1800S features a true measurement range of 1,800m (NATO target) and performs accurate speed measurement. For border patrol, law enforcement and other professionals tasked with perimeter control, the LRM 1800S is an invaluable tool.

The LRM 2200SI features a true measurement range of 2,200m (NATO target) and is reliable in practically all weather conditions. The built-in digital magnetic compass and inclinometer enable accurate azimuth and inclination measurements.

In combination with an NVS 14 series night vision monocular, each device in the LRM line can operate 24 hours a day.

| Optics | LRM 1500M | LRM 1800S | LRM 2200SI |
|---|---|---|---|
| Magnification (x) | 7 | 7 | 7 |
| Objective lens diameter (mm) | 25 | 25 | 25 |
| Field of view (°) | 8 | 8 | 8 |
| Eye relief (mm) | 15 | 15 | 15 |
| Diopter adjustment range | ±4 | ±4 | ±4 |
| **Rangefinder** | | | |
| Eye safety | Class 1, eye-safe | Class 1, eye-safe | Class 1, eye-safe |
| Wavelength (nm) | 905 | 905 | 905 |
| Measuring distance range (m)* | 10 - 1,500 | 10 - 1,800 | 10 - 2,200 |
| Distance measurement accuracy (m) | ±1 | ±1 | ±1 |
| Azimuth measurement accuracy (°/mils) | - | - | ±2 / 35 |
| Inclination measurement accuracy (°/mils) | - | - | ±1 / 17 |
| Speed detection | No | Yes | Yes |
| First/last target logic | No | No | Yes |
| Scan mode | Yes | Yes | Yes |
| **Display** | | | |
| Meters/yards display | Yes | Yes | Yes |
| Computer output, type | None | None | None |
| Last 10 readings recall | Yes | Yes | Yes |
| Reticle pattern selection | Yes | Yes | Yes |
| Target quality indicator | Yes | Yes | Yes |
| Low battery indicator | Yes | Yes | Yes |
| **Mechanics, Electronics & Environmental** | | | |
| Dimensions (mm) | 127x125x60 | 127x125x60 | 127x125x60 |
| Weight without batteries (g) | 445 | 445 | 445 |
| Power supply | 9V | 9V | 9V non-magnetic |
| Battery life (# of measurements) | 5,000 | 5,000 | 5,000 |
| Operating temperature range (°C) | -25 to +50 | -25 to +50 | -25 to +50 |
| Storage temperature range (°C) | -30 to +55 | -30 to +55 | -30 to +55 |
| Waterproofing | IP66 | IP66 | IP66 |

*2.3m x 2.3m NATO standard target

Coupled with Night Vision Monocular

Tripod Mounted

Delivery Set

LASER RANGEFINDERS

# LRB 20000C

LONG RANGE LASER RANGEFINDER BIOCULAR

The LRB 20000C is a professional laser rangefinder biocular designed for ground surveillance, target observation and distance measurement out to 20,000m. This rangefinder employs a proven time-of-flight delay algorithm to ensure accuracy and a single strong impulse to minimize exposure time. With an optional angular mount it can also measure horizontal angles and magnetic azimuth as well as vertical angles. The result of distance measurements is displayed through the eyepiece and can be transferred for processing via computer output. The unit can be remotely triggered via RS-232.

This robust rangefinder can be used in geological and engineering surveying, construction and repair works, maritime navigation, meteorology and other activities that require accurate long range distance measuring



| **Optics** | |
|---|---|
| Magnification (x) | 7 |
| Objective lens diameter (mm) | 45 |
| Field of view (°) | 6.7 |
| Eye relief (mm) | 18 |
| Diopter adjustment range | ±4 |
| **Rangefinder** | |
| Eye safety | Class IIIb, training filters available |
| Wavelength (nm) | 1060 |
| Measuring distance range (m) | 100 - 20,000 |
| Azimuth measurement accuracy (°) | 1 |
| Inclination measurement accuracy (°) | 1 |
| Speed detection | No |
| First/last target logic | Yes |
| Gating capability | No |
| Gating step (m) | No |
| Peripheral compatability | PC, Angular mount |
| **Display** | |
| Meters/yards display | Meters |
| Computer output, type | RS-232 |
| Low battery indicator | Yes |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 225x215x110 |
| Weight without batteries (g) | 2,100 |
| Power supply | 12-14.5V DC or 22-29V DC |
| Battery life (# of measurements) | 250 |
| Operating temperature range (°C) | -40 to +55 |
| Storage temperature range (°C) | -40 to +55 |
| Waterproofing | IP66 |

LRB 20000C with Optional Eye-safe Filter

Angular Mount

Delivery Set

# OEM LRF MODULES

## LASER RANGEFINDER MODULES FOR OEM INTEGRATION

MICRO Series

Designed for OEM integration, Newcon Optik's LRF module series provides accurate measurements for unmanned vehicles, fire control systems, industrial machinery, border surveillance stations and countless other applications. The newly improved MICRO series consists of four modules, each of which is barely larger than a deck of cards. Now with a ranging capability of 3,000m to a NATO standard target and a maximum ranging capability of 5,500m, these modules lead the pack in terms of their performance standards and physical size. The MICRO 1550 and 1550 (CI) utilize a 1550nm laser that cannot be seen by image intensified night vision systems. Each 'CI' variant incorporates a digital magnetic compass and inclinometer for vector measurement and enhanced spatial data collection.

The MOD 3 and MOD 3CI provide accurate distance and speed measurement while the 3CI provides azimuth and inclination measurements as well.

All Newcon Optik OEM modules support the RS-232 interface. Other features include gating capability, fast scan mode, speed measurement, and object selection.

| | LRF MICRO<br>LRF MICRO CI | LRF MICRO (1550)<br>LRF MICRO (1550) CI | LRF MOD 3<br>LRF MOD 3CI |
|---|---|---|---|
| **Rangefinder** | | | |
| Eye safety | Class 1, eye-safe | Class 1, eye-safe | Class 1, eye-safe |
| Wavelength (nm) | 905 | 1550 | 905 |
| Distance measurement range, (m) * | 3,000 | 3,000 | 3,000 |
| Distance measurement range, (m) ** | 1,000 | 1,000 | 500 |
| Distance measurement range, maximum (m) | 5,500 | 5,500 | 3,000 |
| Distance measurement accuracy, (m) | ±1 | ±1 | ±1 |
| Azimuth measurement accuracy (°/mils) | ±1 / 17 (CI only) | ±1 / 17 (CI only) | ±1 (CI Only) |
| Inclination measurement accuracy (°/mils) | ±1 / 17 (CI only) | ±1 / 17 (CI only) | ±1 (CI Only) |
| Speed detection | Yes | Yes | Yes |
| Measuring time, distance (seconds) | 0.1 | 0.1 - 1.1 | 0.5 |
| Simultaneously detected targets | Multiple | Multiple | Multiple |
| First/last target logic | Yes | Yes | Yes |
| Gating capability | Yes | Yes | Yes |
| Gating step (m) | 100 | 100 | 100 |
| **Mechanics, Electronics & Environmental** | | | |
| Dimensions (mm) | 88x48x30 | 88x48x30 | 98x88x48 |
| Weight (g) | 107 / 120 (CI) | 107 / 120 (CI) | 180 / 185 (CI) |
| Interface | UART, RS-232 | UART, RS-232 | RS-232 |
| Power source | 5 - 15V DC | 5 - 15V DC | 7-12V DC |
| Operating temperature range (°C) | -40 to +50 | -40 to +50 | -40 to +50 |
| Storage temperature range (°C) | -40 to +60 | -40 to +60 | -40 to +60 |

*2.3m x 2.3m NATO standard target ** 1m x 1m NATO standard target

LRF MICRO integration with Talon Universal Weapon Mount

MOD 3CI Integrated into Observation Turet System

LRF MICRO Delivery Set

LRF MOD 3 / 3CI

# MOD 4EC · MOD 6EC

LASER RANGEFINDER MODULES FOR OEM INTEGRATION

The MOD 4EC and MOD 6EC were designed specifically for remotely operated small platforms. In addition to their outstanding functionality, these modules can be attached to Mini-Typhoon, CLAWS and other systems with a quick release mount. The units are designed to endure the harsh operating conditions of the real world. Both models can withstand high vibration, a wide temperature range, dust, rain and RF jammers. The LRF MOD 4EC and LRF MOD 6EC provide distance, speed, azimuth and elevation measurements. Other features include gating, fast scan and target selection.

Both units can be integrated with other systems and communicate via RS-232. In designing these LRF modules for precision target acquisition, special attention was given to the ability to boresight the unit with a pre-designed optical platform. A removable visual eyepiece and a video camera attachment are provided to enable quick boresighting and visual integration with other observation systems.

| **Rangefinder** | **MOD 4EC** | **MOD 6EC** |
|---|---|---|
| Eye safety | Class 1, eye-safe | Class 1, eye-safe |
| Wavelength (nm) | 905 | 905 |
| Distance measurement range, (m) * | 4,000 | 6,000 |
| Distance measurement accuracy (m) | ±1 | ±1 |
| Azimuth measurement accuracy (°/mils) | ±1 / 17 | ±1 / 17 |
| Inclination measurement accuracy (°/mils) | ±1 / 17 | ±1 / 17 |
| Speed detection | Yes | Yes |
| Measuring time, distance (seconds) | 0.5 | 0.5 |
| Simultaneously detected targets | Multiple | Multiple |
| First/last target logic | Yes | Yes |
| Gating capability | Yes | Yes |
| Gating step (m) | 100 | 100 |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 230x210x95 | 230x210x95 |
| Weight (g) | 2,600 | 2,600 |
| Interface | RS-232 | RS-232 |
| Power source | 9V DC | 9V DC |
| Operating temperature range (°C) | -25 to +50 | -25 to +50 |
| Storage temperature range (°C) | -40 to +60 | -40 to +60 |

*2.3m x 2.3m NATO standard target

Typical use of Mod 6EC

PC Connectivity

Delivery Set

Camera Adapter

# NIGHT VISION INTRODUCTION

*Newcon Optik manufactures the world's most advanced night vision technologies and makes them available to professional end-users worldwide. Since 1992 we have focused continually on improving our image intensifier tube (IIT) technology and our night vision monocular, goggle, binocular and riflescope systems.*

*Today we are proud to offer each of our night vision devices with three image intensifier tube options. Whether selecting our XT, AG or AGBW series IITs, you can rest assured that all of our systems utilize the most advanced technology available worldwide. Each Newcon Optik IIT utilizes a gallium arsenide (GaAs) photocathode that ensures your system will be highly sensitive in low light conditions. As our production techniques continually improve, so does the image clarity of our IITs—each one features a minimum figure of merit (FOM) of 1600 with much higher typical values. Other technologies to minimize halo, increase contrast and make our systems safer and more reliable to operate are incorporated into each night vision device we proudly produce.*

## AGBW Series

*The AGBW series consists of advanced Generation 3 IITs with world-leading GaAs photocathode sensitivity and FOM. This series of IIT, like the AG series, incorporates an auto-gating system that automatically adjusts itself to limit the impact of changing light conditions—the effect of muzzle flash, vehicle lights and other intermittent battlefield light sources is significantly reduced by auto-gating technology. The black and white image produced by the AGBW series reduces eye strain and provides better contrast in certain light conditions.*

## AG Series

*The AG series consists of advanced Generation 3 IITs with world-leading GaAs photocathode sensitivity and FOM. This series of IIT, like the AGBW series, incorporates an auto-gating system that automatically adjusts itself to limit the impact of changing light conditions—the effect of muzzle flash, vehicle lights and other intermittent battlefield light sources is significantly reduced by auto-gating technology.*

## XT Series

*The XT series consists of advanced Generation 3 IITs with world-leading GaAs photocathode sensitivity and FOM.*

# NVS 14 SERIES

## NIGHT VISION MONOCULARS

NVS 14-3AG
NVS 14-3AGBW

NVS 14-3XT

The NVS 14 series of night vision monoculars have been proven in deployments in conflict zones and by peacekeepers around the world. All models utilize advanced Gen 3 image intensifier tubes, with minimum, exportable FOM >1600, have a manual gain control system, built-in IR illuminator, auto shutoff mechanism and are fully MIL-SPEC.

The newly improved NVS 14-3AG and NVS 14-3AGBW models are now, at 268g, the lightest night vision monoculars utilizing full sized IITs available today. Both systems are auto-gated while the NVS 14-3AGBW produces a black & white image rather than the traditional green.

All models are MIL-STD-810G, but with the GCS upgrade can be made submersible to 20 meters for 1 hour. Each NVS 14 series device can be handheld, weapon, head or helmet mounted. With optional lens attachments that turn either model into a 3x or 5x night vision sight and a full range of additional accessories the NVS 14 series is among the world's most versatile night vision devices

| IIT | NVS 14-3AG/NVS14-3AGBW | NVS 14-3XT |
|---|---|---|
| Generation | 3 | 3 |
| Photocathode material | GaAs | GaAs |
| IIT resolution, minimum (lp/mm) | 64 | 64 |
| Signal to noise ratio, minimum | 24 | 24 |
| Auto-gating | Yes | No |
| Black & white phosphor | AGBW | No |
| **Optics** | | |
| Magnification (x) | 1 | 1 |
| Field of view (°) | 40 | 40 |
| Objective F# | 1.2 | 1.17 |
| Objective focal length (mm) | 25 | 27.5 |
| Focus range (m) | 0.25 - ∞ | 0.25 - ∞ |
| Eye relief (mm) | 25 | 25 |
| Diopter adjustment range | -6 to +5 | -6 to +5 |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 104x44x69 | 118x69x48 |
| Weight without batteries (g) | 268 | 300 |
| Built-in IR illuminator | Yes | Yes |
| Battery type | 1x AA or 1xCR123 | 1x AA or 1xCR123 |
| Battery life (hours) | 40 | 40 |
| Operating temperature range (°C) | -50 to +55 | -50 to +55 |
| Storage temperature range (°C) | -50 to +70 | -50 to +70 |
| Waterproofing, standard | MIL-STD-810G | MIL-STD-810G |
| Waterproofing, GCS Upgrade | 20m, 1 hour | 20m, 1 hour |

With NVS 5x lens

On Rifle with NVS W Mount

Head Mounted

Helmet Mounted with NVS S Mount

# NVS 15 SERIES

## DUAL TUBE NIGHT VISION GOGGLES

NVS 15-3AG
NVS 15-3AGBW

NVS 15-3XT

The NVS 15 series of night vision goggles have been proven in deployments in conflict zones and by peacekeepers around the world. All models utilize two advanced Gen 3 image intensifier tubes, with minimum, exportable FOM >1600, have a manual gain control system, built-in IR illuminator, auto shutoff mechanism and are fully MIL-SPEC.

The newly improved NVS 15-3AG and NVS 15-3AGBW are now the lightest dual tube goggles available today. Both systems are auto-gated while the NVS 15-3AGBW produces a black & white image rather than the traditional green.

The NVS 15 series provides users with full depth perception and is ideal for vehicle operation and any other dark environment task requiring acute situational awareness. The modular design of the NVS 15 allows for the detachment of the left or right eye device while the proprietary bridge mount provides for interpupillary and other fine adjustments.

All models are MIL-STD-810G, but with the GCS upgrade can be made submersible to 20 meters for 1 hour. Each monocular module in the NVS 15 can be handheld, weapon, head or helmet mounted. With optional lens attachments that convert the NVS 15 into 3x or 5x binoculars and a full range of additional accessories, the NVS 15 series is among the world's most versatile night vision devices.

| IIT | NVS 15-3AG/NVS 15-3AGBW | NVS 15-3XT |
|---|---|---|
| Generation | 3 | 3 |
| Photocathode material | GaAs | GaAs |
| IIT resolution, minimum (lp/mm) | 64 | 64 |
| Signal to noise ratio, minimum | 24 | 24 |
| Auto-gating | Yes | No |
| Black & white phosphor | AGBW | No |
| **Optics** | | |
| Magnification (x) | 1 | 1 |
| Field of view (°) | 40 | 40 |
| Objective F# | 1.2 | 1.17 |
| Objective focal length (mm) | 25 | 27.5 |
| Focus range (m) | 0.25 - ∞ | 0.25 - ∞ |
| Eye relief (mm) | 25 | 25 |
| Diopter adjustment range | -6 to +5 | -6 to +5 |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 111x150x65 | 118x120x69 |
| Weight without batteries (g) | 641 | 725 |
| Interpupillary distance (mm) | 52 - 74 | 52 - 74 |
| Built-in IR illuminator | Yes | Yes |
| Battery type | 2x AA or 2xCR123 | 2x AA or 2xCR123 |
| Battery life (hours) | 40 | 40 |
| Operating temperature range (°C) | -50 to +55 | -50 to +55 |
| Storage temperature range (°C) | -50 to +70 | -50 to +70 |
| Waterproofing, standard | MIL-STD-810G | MIL-STD-810G |
| Waterproofing, GCS update | 20m, 1 hour | 20m, 1 hour |

Helmet Mounted with NVS S Mount

NVS 15 with NVS Lens 3x

NVS Bridge Mount

NIGHT VISION SYSTEMS

# NVS 7 SERIES

NIGHT VISION GOGGLES
NSN#: 5855-20-000-8284

NVS 7-3XT
NVS 7-3AG
NVS 7-3AGBW

The NVS 7 series of night vision goggles have been proven in deployments in conflict zones and by peacekeepers around the world. All models utilize advanced Gen 3 image intensifier tubes, with minimum, exportable FOM >1600, have a built-in IR illuminator, auto shutoff mechanism and are fully MIL-SPEC. The NVS 7-3AG is an auto-gated unit while the NVS 7-3AGBW is auto-gated and produces a black & white image rather than the traditional green.

Fitted with an optional 3x, 4x, 5x or 8x lens, this advanced goggle can be easily converted to a long range night vision binocular and a with full range of additional accessories the NVS 7 series is among the world's most versatile night vision devices.

| IIT | NVS 7-3XT/NVS 7-3AG/NVS 7-3AGBW |
|---|---|
| Generation | 3 |
| Photocathode material | GaAs |
| IIT resolution, minimum (lp/mm) | 64 |
| Signal to noise ratio, minimum | 24 |
| Auto-gating | AG & AGBW |
| Auto-gating with black & white phosphor | AGBW |
| **Optics** | |
| Magnification (x) | 1 |
| Field of view (°) | 40 |
| Objective F# | 1.2 |
| Objective focal length (mm) | 27.5 |
| Focus range (m) | 0.25 - ∞ |
| Eye relief (mm) | 25 |
| Diopter adjustment range | -6 to +5 |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 150x120x55 |
| Weight without batteries (g) | 480 |
| Interpupillary distance (mm) | 57-73 |
| Built-in IR illuminator | Yes |
| Battery type | 2x AA |
| Battery life (hours) | 80 |
| Operating temperature range (°C) | -50 to +55 |
| Storage temperature range (°C) | -55 to +60 |
| Waterproofing | MIL-STD-810G |

Head Mounted

Helmet Mounted with NVS S Mount

Delivery set with Optional Hard Case

With External IR Illuminator

# NVS 7 BINOCULAR SERIES

## LONG RANGE NIGHT VISION BINOCULARS

Based on the popular NVS 7 night vision goggles series, the NVS 7 binocular series models are suitable for defence, marine and SAR operations that take place in the world's darkest tactical environments. Available in 4x, 5x and 8x magnification configurations there is a binocular model for virtually any detection, recognition, identification requirement.

The NVS 7-3/4xXT is the smallest and lightest handheld night vision binocular in its class while the NVS 7-3/5xXT provides an excellent visibility range while remaining compact and functional and the NVS 7-3/8xXT incorporates a unique catadioptric lens with a large aperture, making it indispensable for long range observation at night. The 8x model is equipped with a ¼" tripod socket.

NVS 7-3/4xXT

NVS 7-3/5xXT

NVS 7-3/8xXT

| IIT | NVS 7-3/4xXT | NVS 7-3/5xXT | NVS 7-3/8xXT |
|---|---|---|---|
| Generation | 3 | 3 | 3 |
| Photocathode material | GaAs | GaAs | GaAs |
| IIT resolution, minimum (lp/mm) | 64 | 64 | 64 |
| Signal to noise ratio, minimum | 24 | 24 | 24 |
| Auto-gating | Optional | Optional | Optional |
| Auto-gating with black & white phosphor | Optional | Optional | Optional |
| **Optics** | | | |
| Objective Lens | NVS Lens 4x | NVS Lens 5x | NVS Lens 8x |
| Magnification (x) | 4 | 5 | 8 |
| Field of view (°) | 10 | 8 | 5 |
| Objective F# | 1.5 | 2.3 | 2.0 |
| Objective focal length (mm) | 100 | 130 | 218 |
| Focus range (m) | 10 - ∞ | 10 - ∞ | 10 - ∞ |
| Eye relief (mm) | 25 | 25 | 25 |
| Diopter adjustment range | -6 to +5 | -6 to +5 | -6 to +5 |
| **Mechanics, Electronics & Environmental** | | | |
| Dimensions (mm) | 165x120x70 | 230x136x82 | 240x150x130 |
| Weight without batteries (g) | 690 | 800 | 1,470 |
| Interpupillary distance (mm) | 57-73 | 57-73 | 57-73 |
| Built-in IR illuminator | Yes | Yes | Yes |
| Battery type | 2x AA | 2x AA | 2x AA |
| Battery life (hours) | 80 | 80 | 80 |
| Operating temperature range (°C) | -50 to +55 | -50 to +55 | -50 to +55 |
| Storage temperature range (°C) | -55 to +60 | -55 to +60 | -55 to +60 |
| Waterproofing | MIL-STD-810G | MIL-STD-810G | MIL-STD-810G |

# NIGHT VISION ACCESSORIES



NVS S Mount
Shroud compatible helmet mount

NVS H Mount
PASGT compatible helmet mount

NVS FS Mount
Flip-to-side weapon mount for NVS 14

NVS CAM/Video
NVS 14 interface to video and still cameras

NVS DS (Demist Shield)

NVS SW (Sacrificial Window)

NVS U Coupler
Universal night vision to day optics attachment

Hard Case

NVS 3x Lens

NVS 4x Lens

NVS 5x Lens

NVS 8x Lens

# NVS 27

NIGHT VISION CLIP-ON ATTACHMENT

The NVS 27 is Newcon Optik's most advanced night vision clip-on to date and represents a significant improvement on other clip-on systems currently available. Utilizing any of Newcon Optik's XT, AG or AGBW IIT systems, this high-resolution unit is designed to mount in front of virtually any daytime riflescope. It differs from the competition in many ways, but primarily in its compatibility with day sight magnifications between 1x and 20x. As military and police shooters continue to use higher magnification day sights, this compatibility range provides a significant advantage in the field, enabling the use of most, if not all, of a given day sight's magnification capability.

The NVS 27 was designed by shooters, and its extra wide field of view, manual gain control system and extended target detection range make it the world's most complete night vision clip-on system.

| **IIT** | **NVS 27** |
|---|---|
| Generation | 3 |
| Photocathode material | GaAs |
| IIT resolution, minimum (lp/mm) | 64 |
| Signal to noise ratio, minimum | 24 |
| Auto-gating | Yes |
| Auto-gating with black & white phosphor | Optional |
| **Optics** | |
| Magnification (x) | 1 |
| Field of view (°) | 12 |
| Objective F# | 1 |
| Objective focal length (mm) | 78 |
| Focus range (m) | 10 to ∞ |
| Magnification compatability, recommended (x) | 1 - 20 |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 238x104x97 |
| Weight without batteries (g) | 1,400 |
| Standard mount system | MIL-STD-1913 |
| Built-in IR illuminator | Optional |
| Battery type | 1x AA or 1x CR123 |
| Battery life (hours) | 60 |
| Operating temperature range (°C) | -55 to +65 |
| Storage temperature range (°C) | -60 to +70 |
| Waterproofing | 10m, 1h |

NVS 27 with Newcon Optik NC 5-20x56 Riflescope

Controls

# ILLUMINATOR DEPTH ADJUSTMENT SYSTEMS

ENHANCED NIGHT VISION ILLUMINATION



Illuminator Depth Adjustment technology (IDA) is an entirely new technology developed exclusively by Newcon Optik. IDA technology is currently incorporated into the DN 462-IDA riflescope and the NVS 7-IDA night vision goggle. This groundbreaking advancement is extremely effective in searching an area for concealed targets. IDA systems incorporate an infrared illuminator mated directly to the image intensifier tube. As the user adjusts the illuminator's depth setting, it works together with the IIT to dramatically illuminate at a particular, adjustable distance. This allows for incredibly effective target scanning that has never before been possible with image intensified night vision devices.

Whereas typical night vision illumination systems are often negatively effected by shadows and camouflage, these IDA systems are not. For more information on how IDA works, contact a Newcon Optik dealer or representative.

| IIT | NVS 7-IDA | DN462-IDA |
|---|---|---|
| Generation | 2+ | 2+ |
| Photocathode material | S-25 | S-25 |
| IIT resolution, minimum (lp/mm) | 53 | 53 |
| Signal to noise ratio, minimum | 21 | 21 |
| **Optics** | | |
| Magnification (x) | 1 | 4x |
| Field of view (°) | 40 | 6 |
| Objective F# | 1.2 | 1.2 |
| Objective focal length (mm) | 27.5 | 60 |
| Focus range (m) | 0.25 - ∞ | 30 to ∞ |
| Eye relief (mm) | 25 | 50 |
| Diopter adjustment range | -6 to +5 | -3.5 to +3.5 |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 150x120x55 | 310x95x103 |
| Weight without batteries (g) | 480 | 1,000 |
| Interpupillary distance (mm) | 57-73 | - |
| Battery type | 2x AA | 1x CR123 Lithium |
| Battery life (hours) | 80 | 60 |
| Operating temperature range (°C) | -50 to +55 | -30 to +40 |
| Storage temperature range (°C) | -55 to +60 | -40 to +50 |
| Waterproofing | MIL-STD-810G | MIL-STD-810G |

# DN 463

## 4X NIGHT VISION RIFLESCOPE

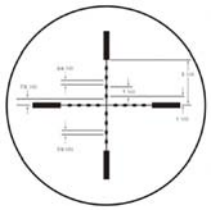
The DN 463 is a military grade night vision riflescope and is the scope of choice for tactical operators requiring a night time CQB and/or medium range target engagement capability. Fully weatherproof, with a nitrogen filled optical channel the DN 463 can be used in virtually any combat environment.

The unit is available with XT, AG and AGBW series Gen 3 image intensifier tubes that feature automatic brightness control, bright source protection and minimum exportable FOM >1600. The wide-aperture lens provides a sharp and clear picture while the high light gain allows operation even in situations of critically low illumination.

The DN 463 is equipped with a Mil-Dot reticle and a voltage stabilization system that eliminates reticle shift even with an almost fully discharged battery.

| IIT | DN 463 |
|---|---|
| Generation | 3 |
| Photocathode material | GaAs |
| IIT resolution, minimum (lp/mm) | 64 |
| Signal to noise ratio, minimum | 24 |
| Auto-gating | Optional |
| Auto-gating with black & white phosphor | Optional |
| **Optics** | |
| Magnification (x) | 4 |
| Field of view (°) | 6 |
| Objective F# | 1.2 |
| Objective focal length (mm) | 60 |
| Focus range (m) | 30 to ∞ |
| Eye relief (mm) | 50 |
| Diopter adjustment range | -3.5 to +3.5 |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 310x95x103 |
| Weight without batteries (g) | 1,000 |
| Standard mount system | MIL-STD-1913 |
| Built-in IR illuminator | Yes (removable) |
| Battery type | 1x CR123 Lithium |
| Battery life (hours) | 60 |
| Operating temperature range (°C) | -30 to +40 |
| Storage temperature range (°C) | -40 to +50 |
| Waterproofing | MIL-STD-810G |
| **Ballistics** | |
| Reticle pattern | Mil-Dot |
| Lit reticle | Yes |
| Adjustable reticle brightness | Yes |
| Windage adjustment step (MOA) | 0.34 |
| Elevation adjustment step (MOA) | 0.34 |

Mounted on Assault Rifle



Reticle

Quick Release Mount

NIGHT VISION SYSTEMS

# DN 493_6x

6x NIGHT VISION RIFLESCOPE



The DN 493_6x night vision riflescope is a 6x magnification device ideal for medium to long range target engagement. Its manual gain control and adjustable reticle brightness set it apart from the crowd.

Available with XT, AG and AGBW Gen 3 image intensifier tubes complete with automatic brightness control, bright source protection and minimum exportable FOM >1600. This scope is easy to service and maintain and provides one of the lowest lifetime costs of ownership among riflescopes in its class.

The DN 493_6x is battle hardened and ready for deployment in combat, peacekeeping and public and private infrastructure security.

| IIT | DN 493_6X |
|---|---|
| Generation | 3 |
| Photocathode material | GaAs |
| IIT resolution, minimum (lp/mm) | 64 |
| Signal to noise ratio, minimum | 24 |
| Auto-gating | Optional |
| Auto-gating with black & white phosphor | Optional |
| **Optics** | |
| Magnification (x) | 6 |
| Field of view (°) | 6 |
| Objective F# | 1.2 |
| Objective focal length (mm) | 165 |
| Focus range (m) | 30 to ∞ |
| Eye relief (mm) | 90 |
| Diopter adjustment range | -3 to +4 |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 310x98x90 |
| Weight without batteries (g) | 1,100 |
| Standard mount system | MIL-STD-1913 |
| Built-in IR illuminator | Yes (removable) |
| Battery type | 2x AA |
| Battery life (hours) | 60 |
| Operating temperature range (°C) | -40 to +50 |
| Storage temperature range (°C) | -45 to +55 |
| Waterproofing | MIL-STD-810G |
| **Ballistics** | |
| Reticle pattern | Mil-Dot |
| Lit reticle | Yes |
| Adjustable reticle brightness | Yes |
| Windage adjustment step (MOA) | 0.34 |
| Elevation adjustment step (MOA) | 0.34 |

Mounted on Sniper Rifle

Illuminated MIL-Dot Reticle

Controls

# NVS 6 · NVS 9

## AVIATOR NIGHT VISION IMAGING SYSTEMS

The NVS 6 and NVS 9 ANVIS goggles enable pilots to operate their aircraft in the darkest flight environments. These goggles allow aviators to navigate at the nap of the earth, take off, land and perform other operations that are otherwise impossible at night without the use of a light source.

Adjustable 25 mm eyepieces provide improved eye relief enabling excellent viewing regardless of the eyepiece positioning. Ergonomically designed interface controls including interpupillary adjustments and vertical, fore-aft and tilt adjustments allow improved viewing of the entire system field of view. The lightweight goggles can be mounted on a variety of aviator helmets. Newcon Optik's expert team is able to ensure you select the right goggle for your aircraft and its cockpit lighting system.

| IIT | NVS 6 | NVS 9 |
|---|---|---|
| Generation | 3 | 3 |
| Photocathode material | GaAs | GaAs |
| IIT resolution, minimum (lp/mm) | 64 | 64 |
| Signal to noise ratio, minimum | 24 | 24 |
| Auto-gating | No | Yes |
| **Optics** | | |
| Magnification (x) | 1 | 1 |
| Field of view (°) | 40 | 40 |
| Objective F# | 1.23 | 1.23 |
| Objective focal length (mm) | 27 | 27 |
| Focus range (m) | 0.25 to ∞ | 0.25 to ∞ |
| Eye relief (mm) | 25 mm | 25 mm |
| Diopter adjustment range | -5 to +2 | -5 to +2 |
| Filter (Available) | Leaky green or Minus blue | |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 128x128x11 | 128x128x11 |
| Weight without batteries (g) | 550 | 550 |
| Battery type | 2x AA | 2x AA |
| Battery life (hours) | 60 | 60 |
| Operating temperature range (°C) | -32 to +52 | -32 to +52 |
| Storage temperature range (°C) | -40 to +60 | -40 to +60 |

Mounted on Aviator Helmet

Optional NVS Battery Adapter

Delivery Set with
Optional Hard Case

NIGHT VISION SYSTEMS

# NIGHTWITNESS M3

NIGHT VISION SURVEILLANCE SYSTEM



NightWitness M3

The NightWitness M3 is designed for conducting surveillance and intelligence gathering activities under the cover of night. This device is the ideal night vision system to give the edge to law enforcement and private security professionals. The NightWitness M3 can be mounted on a variety of camera systems allowing the user to capture high quality true night vision images in low light conditions. Based on Newcon Optik's popular NVS 14 series, this device utilizes a Gen 3 image intensifier tube with minimum exportable FOM >1600 and is available in XT, AG and AGBW variants.

Designed with modularity in mind, the objective lens interface on the NightWitness M3 is compatible with any C-mount lens.

| **IIT** | |
|---|---|
| Generation | 3 |
| Photocathode material | GaAs |
| IIT resolution, minimum (lp/mm) | 64 |
| Signal to noise ratio, minimum | 24 |
| Auto-gating | Optional |
| Auto-gating with black & white phosphor | Optional |
| **Optics** | |
| Magnification (x) | 1 |
| Field of view (°) | 40 |
| Objective F# | 1.17 |
| Objective focal length (mm) | 27.5 |
| Focus range (m) | 0.25 - ∞ |
| Eye relief (mm) | 25 |
| Diopter adjustment range | -6 to +5 |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 115x69x48 |
| Weight without batteries (g) | 328 |
| Built-in IR illuminator | Yes |
| Battery type | 1x AA or 1xCR123 |
| Battery life (hours) | 40 |
| Operating temperature range (°C) | -50 to +55 |
| Storage temperature range (°C) | -50 to +70 |
| Waterproofing | MIL-STD-810G |

NightWitness M3 with DSLR Camera

NightWitness M3
With HD Camcorder

NightWitness M3
Delivery Set

Delivery Set with
Optional Hardcase

# NV 207-G2 · NV 66-G2

NIGHT VISION SYSTEMS WITH NO EXPORT PERMIT REQUIRED

NV 207-G2

NV 66-G2

The NV 207-G2 and NV 66-G2 provide optical advantage in a variety of situations in which a night vision capability is required. These Gen 2+ systems do not require an export permit.

The NV 207-G2 uses the same approach to night vision as the NVS 14 night vision monocular series while the NV 66-G2 features many of the advantages of the NVS 7 night vision goggle series.

A large variety of available accessories allow both units to be applied to a number of real world applications including game reserve management, private and public infrastructure security and, where allowed by law, hunting and other outdoor activities

| IIT | NV 207-G2 | NV 66-G2 |
|---|---|---|
| Generation | 2+ | 2+ |
| Photocathode material | S-25 | S-25 |
| IIT resolution, minimum (lp/mm) | 53 | 53 |
| Signal to noise ratio, minimum | 18 | 18 |
| **Optics** | | |
| Magnification (x) | 1 | 1 |
| Field of view (°) | 40 | 40 |
| Objective F# | 1.17 | 1.2 |
| Objective focal length (mm) | 27.5 | 27.5 |
| Focus range (m) | 0.25 - ∞ | 0.25 - ∞ |
| Eye relief (mm) | 25 | 25 |
| Diopter adjustment range | -6 to +5 | -6 to +5 |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 118x69x48 | 150x120x55 |
| Weight without batteries (g) | 300 | 480 |
| Interpupillary distance (mm) | - | 57-73 |
| Built-in IR illuminator | Yes | Yes |
| Battery type | 1x AA or 1xCR123 | 2x AA |
| Battery life (hours) | 40 | 80 |
| Operating temperature range (°C) | -50 to +55 | -50 to +55 |
| Storage temperature range (°C) | -50 to +70 | -55 to +60 |
| Waterproofing | IP67 | IP67 |

NV 207-G2 with NVS Lens 3x

NV 66-G2 with NVS Lens 4x

NV 66-G2 with NVS S Mount

NV 207-G2 with NVS Lens 5x

# SENTINEL LRF

## UNCOOLED THERMAL IMAGING BIOCULAR WITH LRF

The SENTINEL LRF is the world's most capable uncooled thermal laser rangefinder system. This thermal imaging biocular is suitable in a wide variety of tactical, law enforcement, border security and special forces applications. The SENTINEL LRF utilizes a high-resolution uncooled thermal sensor to perceive differences in the thermal signature of objects within the field of view. It's small size, lightweight and excellent power efficiency makes it a portable force multiplier ready for deployment in any environmental conditions.

The SENTINEL LRF can detect objects at remote distances of up to 7 kilometres 24 hours a day, through smoke, fog or camouflage. Its eye-safe laser rangefinder measures distances up to 5.5 kilometres as well as the azimuth and inclination of any given target. The unit's video output allows for the recording and transmission of live video or still images to other personnel as well as projection of the real-time thermal video on a portable device, computer or television monitor.

| Sensor | SENTINEL LRF |
|---|---|
| Resolution (pixels) | 384x288 or 640x512 |
| Operating wavelength (µ) | 7 - 14 |
| Sensitivity (mK @F1.0) | <50 |
| Video output | PAL or NTSC |
| DRI range (m)* | 2,500/625/313 |
| **Optics** | |
| Objective focal length (mm) | 75 |
| Field of view (°) | 7x6 or 8x7 |
| Eye relief (mm) | 35 |
| Dioptric correction | -6 to +2 |
| Zoom | 2x, 4x, (8x opt) |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 197x145x90 |
| Weight without batteries (g) | 1,375 |
| Battery type | 4x AA |
| Battery life (hours) | 8 |
| Operating Temperature (°C) | -40 to +80 |
| **Laser Rangefinder** | |
| Laser wavelength (nm) | 1550 |
| Measurement distance to 2.3x2.3m NATO / max (m) | 3,000 / 5,500 |
| Distance measuring accuracy (m) | ±1 |
| Azimuth measuring range (mils/°) | 6,400/360 |
| Elevation measuring range (mils/°) | 2,133 /120 |

*Maximum Detection/Recognition/Identification to human-sized target

TVS D Video Recorder

Data Port

Controls

Delivery Set with Optional Hard Case

SENTINEL variant also available without LRF

# TVS 11M

## TACTICAL THERMAL IMAGING MONOCULAR

The TVS 11M tactical thermal monocular is the next generation of Newcon Optik's tried and tested thermal monocular series. As a lightweight and compact handheld, helmet or weapon mounted device, the TVS 11M is well suited to a variety of tactical, law enforcement, search and rescue and industrial applications. The TVS 11M utilizes passive infrared sensing technology allowing users to detect extremely small differences in the temperature of objects, people and other heat sources within the field of view.

Unlike traditional night vision devices, the TVS 11M can be operated 24 hours a day, in daytime and at night, even in the total darkness of an enclosed space, has the ability to see through smoke, fog and other obscurants, boasts a variety of colour and contrast settings and digital zoom capability. The TVS 11M can also be connected to external display devices allowing other parties to view the observed image in real time.

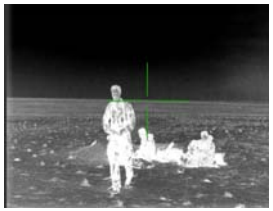
| **Sensor** | **TVS 11 M** |
|---|---|
| Resolution (pixels) | 384x288 |
| Operating wavelength (μ) | 7 - 14 |
| Sensitivity (mK @F1.0) | <60 |
| Video output | PAL or NTSC |
| DRI range (m)* | 1,200/300/150 |
| **Optics** | |
| Objective focal length (mm) | 25 |
| Objective F# | 1.0 |
| Field of view (°) | 22x16.5 |
| Eye relief (mm) | 25 |
| Dioptric correction | -6 to +2 |
| Zoom | 2x, 4x |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 142x78x50 |
| Weight without batteries (g) | 396 |
| Battery type | 2x CR123 |
| Operating Temperature (°C) | -40 to +80 |

*Maximum Detection/Recognition/Identification to human-sized target

Delivery set

TVS 11M Mounted on Assault Rifle

TVS 11M on FAST Helmet with NVS S Mount



Display

TVS 11M - Controls

# TVS 13M · TVS 13M (75)

## UNCOOLED THERMAL IMAGING RIFLESCOPES

TVS 13M

TVS 13M (75)

The TVS 13M thermal riflescope series is designed to act as a force multiplier in the most demanding situations faced by border patrol, law enforcement, tactical teams snipers and special operations forces. The TVS 13M functions effectively in CQB, medium and long range target engagement applications. Advanced in-built ballistics software allows for accurate firing on virtually any weapon platform, while a video output port and internal storage capability enable the capture of video and still images. With its extended range capability the TVS 13M (75) is ideal for long range application

The TVS 13M comes standard with a M1913 quick release mount and can also be used as a hand-held observation tool. Unlike traditional night vision devices, the TVS 13M operates 24 hours a day without any degradation in performance when used in daylight, smoke or fog and it can also penetrate camouflage.

With a variety of other features including image polarity selection, sepia, rainbow and other colour options, a proximity sensor and full MIL-SPEC design, the TVS 13M is the right choice for tactical applications in any environment.

**All TVS 13M models are now available with inclinometer and stability sensor.**

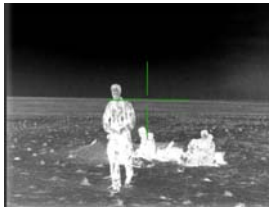
| **Sensor** | **TVS 13M** | **TVS 13M (75)** |
|---|---|---|
| Resolution (pixels) | 384x288 or 640x512 | 384x288 or 640x512 |
| Operating wavelength (µ) | 7 - 14 | 7 - 14 |
| Sensitivity (mK @F1.0) | <50 | <50 |
| Video Output | PAL or NTSC | PAL or NTSC |
| DRI range (m)* | 1,800/450/225 | 2,500/625/313 |
| **Optics** | | |
| Objective focal length (mm) | 54 | 75 |
| Field of view (°) | 10x8 or 12x9 | 7x6 or 8x7 |
| Eye relief (mm) | 25 | 25 |
| Dioptric correction | -6 to +2 | -6 to +2 |
| Zoom | 2x, 4x, (8x opt) | 2x, 4x, (8x opt) |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 280x68x78 | 380x90x90 |
| Weight without batteries (g) | 950 | 1,835 |
| Battery type | 6x AA | 6x AA |
| Battery life (hours) | 8 | 8 |
| Operating Temperature (°C) | -40 to +80 | -40 to +80 |
| **Ballistics** | | |
| # of preprogrammed reticles | 8 | 8 |
| Programable ballistic profiles | 4 | 4 |
| Automatic reticle colour inversion | Yes | Yes |
| Scope level warning | Available | Available |
| Proximity sensor | Yes | Yes |

*Maximum Detection/Recognition/Identification to human-sized target

Controls and TVS Accessory Rail

Delivery set

TVS D Video Recorder



Display

# TVS 18M

THERMAL CLIP-ON ATTACHMENT


The TVS 18M is a clip-on thermal weapon sight designed to be used in conjunction with a magnified day optic. When in use, the shooter relies on the zeroing of the day optic and does not need to re-zero when attaching or detaching the unit. The TVS 18M utilizes an uncooled thermal sensor that allows for the detection of camouflaged targets at long range.

Equipped with a video output, the image captured by the TVS 18M can be viewed in real time by friendly forces, recorded and transmitted. Multiple image polarities and colour schemes, adjustable contrast and variable digital magnification all contribute to making the TVS 18M a valuable addition to any sniper's kit.

| **Sensor** | **TVS 18** |
|---|---|
| Resolution (pixels) | 640x512 |
| Operating wavelength (µ) | 7 - 14 |
| Sensitivity (mK @F1.0) | <50 |
| Video Output | PAL or NTSC |
| DRI range (m)* | 2,200/560/280 |
| **Optics** | |
| Objective lens diameter (mm) | 54 |
| Objective F# | 1.0 |
| Field of view (°) | 11.5x9.2 |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 137x90x115 |
| Weight with batteries (g) | 850 |
| Battery type | 4 x AA |
| Battery life (hours) | 4 |
| Operating Temperature (°C) | -40 to +50 |

*Maximum Detection/Recognition/Identification to human-sized target

TVS 18M Mounted with NC 5-20x56 on Sniper Rifle

TVS 18M - Mounting

TVS 18M - Controls

# LAS 1000

SNIPER DETECTION SYSTEM



The LAS 1000 detects snipers and other forward observers before they fire a shot. This system is ideal for border and perimeter security as well as VIP protection details. While most sniper detection systems are acoustic and help operators respond to a threat after it has already inflicted damage, the LAS 1000 functions on optical principles and can therefore pinpoint the location of a threat before it has a chance to act.

Utilizing an eye-safe laser scanner, the LAS 1000 detects lenses and reflectors in its line of site even if these objects are covered behind bushes, windows or windshields. The detector can be handheld or mounted on a tripod and when an optical reflector of any kind is detected, its position is marked. For added situational awareness, an audio signal can also be set to automatically activate upon the detection of a threat.

The LAS 1000 can reliably detect snipers and other optical equipment in a variety of tactical situations.

| **Optics** | |
|---|---|
| Magnification (x) | 1 |
| Optical sensor type, resolution (pixels) | CCD, 752x582 |
| Field of view (°) | 5.0x3.7 |
| Minimum illumination (lux) | 0.0001 |
| Diopter adjustment range | ± 5 |
| Minimum detection range (m) | 70 |
| Maximum detection range, 4x30 weapon sight (m) | 1,000 |
| **Display & Video** | |
| Display type | OLED SVGA (colour) |
| Video output format | PAL or NTSC |
| Internal storage | Yes, SD card |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 136x168x75 |
| Weight without batteries (g) | 1,600 |
| Tripod mountable | Yes |
| Battery type | 2x 18650 or 4x CR123 |
| Battery life (hours) | 5 |
| External power source | 12-16 VDC (optional) |
| Serial interface | RS-485 |
| Operating temperature range (°C) | -20 to +45 |
| Storage temperature range (°C) | -40 to +65 |
| Waterproofing | IP65 |

Mounted on Tripod

Delivery Set with
Optional Hard Case

# NC 1x21 · HDS 3AA

TACTICAL CQB SIGHTS

NC 1x21

HDS 3 AA

The NC 1x21 and HDS 3AA red dot sights were designed and built for tactical law enforcement and military applications. Both sights allow rapid, accurate target acquisition for close-quarters battle (CQB) and are built with rugged, durable single-piece frames.

The compact NC 1x21 is ideal for short range CQB engagements. It has a variety of brightness settings and is fully compatible with night vision devices. Weighing in at just 132 grams, the NC 1x21 is an extremely lightweight upgrade to any weapon system.

The tried and tested HDS 3AA is better suited to longer range engagements than the NC 1x21. Its multiple brightness settings and precise step adjustments make it accurate in conjunction with a wide variety of assault rifles. Fully compatible with night vision devices, the HDS 3AA can also be used with a 3x or 5x magnification flip-to-side add-on lens, allowing for extended viewing and engagement capability

| Optics | NC 1x21 | HDS 3AA |
|---|---|---|
| Magnification (x) | 1 | 1 (3 or 5 with add-on) |
| Objective lens diameter (mm) | 21 | 26 |
| Eye relief (mm) | Unlimited | Unlimited |
| Diopter adjustment range | ±3 | ±3 |
| **Ballistic Specifications** | | |
| Reticle pattern | Red Dot | Red Dot |
| Lit reticle | Yes | Yes |
| Lit reticle colour | Red | Red |
| Adjustable reticle brightness | 11 Settings | 8 Settings |
| Windage adjustment step (mrad) | 0.3 | 0.1 |
| Elevation adjustment step (mrad) | 0.3 | 0.1 |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 87x57x49 | 122x75x75 |
| Weight without batteries (g) | 132 | 364 |
| Shock resistance (G) | 500 | 500 |
| Battery type | 1x CR2032 | 1x AA |
| Operating temperature range (°C) | -25 to +60 | -51 to +71 |
| Storage temperature range (°C) | -30 to +70 | -55 to +75 |
| Humidity (%) | 95 | 95 |
| Waterproofing | 3m / 1h | 10m / 1h |

HDS 3AA with flip-away 3x Lens

HDS 3AA with flip-away NVS 14

NC 1x21 Delivery Set

NC 1x21 Shown on Assault Rifle

# NC 4x32 · NC 6x50

## FIXED MAGNIFICATION TACTICAL SIGHTS

NC 4x32

NC 6x50 with optional NC BURD

The NC 4x32 and NC 6x50 are new introductions to Newcon Optik's line of weapon mounted tactical day optics. These devices feature 4x and 6x fixed magnification respectively and are therefore ideal for short to medium range target acquisition. Both units feature an LED-lit Mil-Dot ranging reticle with multiple green and red brightness settings. These units can be used in conjunction with night vision devices and are compatible with virtually all assault rifles.

The NC 4x32 and NC 6x50 are highly precise, ruggedized sights and have been battle tested in a wide variety of environmental conditions. These are the right choice for military and police professionals requiring a fixed magnification weapon sight for CQB and medium range assault rifle target engagements.

The optional backup red dot sight (NC BURD) enables rapid target acquisition even at close range

| Optics | NC 4x32 | NC 6x50 |
|---|---|---|
| Maximum magnification (x) | 4 | 6 |
| Objective lens diameter (mm) | 32 | 50 |
| Eye relief (mm) | 72 | 72 |
| Diopter adjustment range | ±2 | ±3 |
| **Ballistic Specifications** | | |
| Reticle pattern | Rangefinding reticle | Rangefinding reticle |
| Lit reticle | Yes | Yes |
| Lit reticle colour | Red / Green | Red / Green |
| Adjustable reticle brightness | Yes | Yes |
| Windage adjustment step (MoA) | 0.5 | 0.5 |
| Elevation adjustment step (MoA) | 0.5 | 0.5 |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 139x79x56 | 180x80x65 |
| Weight (g) | 430 | 540 |
| Shock resistance (G) | 500 | 500 |
| Battery type | 1x CR2032 | 1x CR2032 |
| Battery life, maximum (hours) | up to 200 | up to 100 |
| Operating temperature range (°C) | -51 to +71 | -40 to +50 |
| Storage temperature range (°C) | -55 to +75 | -50 to +55 |
| Humidity (%) | 95 | 95 |
| Waterproofing | 3m, 30min | 3m, 30min |

NC 4x32 on Rifle

NC 6x50 on Rifle

Reticle variations

# LAM SERIES

## WEAPON MOUNTED LASER AIMERS

LAM 3G

LAM 2IR

LAM 10M IR 3A

Newcon Optik's LAM series of weapon mounted laser aimers and illuminators are in service with military and police organizations worldwide. These military grade devices utilize powerful visible and infrared lasers to provide accurate aiming and bright night vision illumination from any weapon system or optical platform.

The LAM 3G is a three-channel laser featuring a green visible laser aimer, an IR laser aimer and an IR illuminator. It has solid audible/tactile step adjustment mechanisms that are easy to use and hold their positions after thousands of discharges. With a low power training mode and a high power in-field mode, this device can be safely utilized among friendly forces and quickly powered up for real-world target engagements.

The LAM 2 IR provides the utility and operational effectiveness of an IR laser aimer and variable spot scene illuminator. With a quick release M1913 mount, the LAM 2IR is amongst the lightest aimers in its class.

The LAM 10M IR 3A is a single channel IR laser aimer designed to reach out to 1,000m. For night operations, this simple, extremely lightweight device is the right choice for professional operators demanding unrivalled performance and reliability.

| **Laser Aimer** | **LAM 3G** | **LAM 2IR** | **LAM 10M IR 3A** |
|---|---|---|---|
| Eye safety | IIIb | IIIb | IIIb |
| Distance, high / low (m)* | V:150/500 ; IR: 2,000/200 | 2,000 / 200 | 1,000 / 200 |
| Beam divergence, FWHM (mrad) | 0.5 | 0.3 | 0.5 |
| Spot size @ 100m (mm) | 50 | 30 | 50 |
| Wavelength (nm) | V:532 ±10 / IR: 845 ±15 | 845 ±15 | 845 ±15 |
| **Infrared Laser Illuminator** | | | |
| Eye safety | IIIb | IIIb | - |
| Distance, high / low (m) | 2000 / 200 | 2000 | - |
| Beam divergence, FWHM (mrad) | 1 - 105 | 1 - 105 | - |
| Spot size @ 100m, min divergence / max divergence (cm) | 5 | 10 -1,050 | - |
| Wavelength (nm) | 830 ±20 | 845 ±15 | - |
| **Ballistics** | | | |
| Windage adjustment step (mrad) | 0.5 | 0.5 | 0.5 |
| Windage adjustment range (mrad) | 40 | 40 | 40 |
| Elevation adjustment step (mrad) | 0.5 | 0.5 | 0.5 |
| Elevation adjustment range (mrad) | 40 | 40 | 40 |
| Retention after 1,000 shots (mrad) | ±0.5 | ±0.5 | ±0.1 |
| **Mechanics, Electronics & Environmental** | | | |
| Dimensions (mm) | 100x80x40 | 122x81x41 | 113x45x32 |
| Weight without batteries (g) | 278 | 300 | 150 |
| Shock resistance (G) | 300 | 300 | 300 |
| Quick release | Yes | Yes | Yes |
| Battery type | CR 123 or AA | CR 123 | CR 123 or AA |
| Battery life, high / low (hours) | 8 / 16 | 8 / 16 | 10 / 30 |
| Operating temperature range (°C) | -10 to +50 | -50 to +55 | -40 to +60 |
| Storage temperature range (°C) | -40 to +60 | -50 to +55 | -40 to +60 |
| Waterproofing | IP67 | IP67 | 45m/1h |

*V - Visible, IR - Infrared

LAM 10M IR 3A on Assault Rifle

# IRIL 1000

LONG RANGE INFRARED ILLUMINATOR AND TARGET DESIGNATOR

The IRIL 1000 IR laser illuminator lights up the night sky for those wearing image intensified night vision devices. This device is designed to reach out to extreme distances to aid in target identification and engagement from ground and air based platforms. Equipped with an M1913 quick release mount, the IRIL series of illuminators can be mounted on virtually any rifle platform, or crew-served weapon system.

The IRIL 1000 has an adjustable beam divergence between 1 and 20 mrad allowing for immediate transition between wide area spot scene illuminator and accurate IR laser aimer. Its extreme long maximum range provides significant optical advantage to professional night operators in all environmental conditions.

| Infrared Laser Aimer | IRIL 1000 |
|---|---|
| Eye safety | IV |
| Distance, high (m) | 40,000 |
| Beam divergence, FWHM (mrad) | 1 |
| Spot size @ 100m (mm) | 100 |
| Wavelength (nm) | 810 ±10 |
| **Infrared Laser Illuminator** | |
| Eye safety | IV |
| Distance, high (m) | 3,000 |
| Beam divergence, FWHM (mrad) | 1 - 20 |
| Spot size @ 100m, min divergence / max divergence (cm) | 1 - 200 |
| Wavelength (nm) | 810 ±10 |
| **Ballistics** | |
| Windage adjustment step (mrad) | 0.5 |
| Windage adjustment range (mrad) | 80 |
| Elevation adjustment step (mrad) | 0.4 |
| Elevation adjustment range (mrad) | 80 |
| Retention after 1,000 shots (mrad) | ±0.5 |
| **Mechanics, Electronics & Environmental** | |
| Dimensions (mm) | 230x71x50 |
| Weight without batteries (g) | 550 |
| Shock resistance (G) | 500 |
| Quick release | Yes |
| Battery type | 4x AA |
| Battery life, high / low (hours) | 8 / 15 |
| Operating temperature range (°C) | -20 to +50 |
| Storage temperature range (°C) | -30 to +55 |
| Waterproofing | IP67 |

Shown on assault rifle

Controls

Delivery Set

# AN BINOCULAR SERIES

TACTICAL DAY BINOCULARS

NSN#: (AN 8x30M22) 6650-20-007-7029

AN 8x30M22

AN 7x50MC

AN 7x50M22

AN 10x50M22

The AN series of binoculars incorporates BAK-4 roof prisms and multi-coated lenses, delivering impressive light transmission and resolution for brilliantly clear vision. Non-slip UV-resistant rubber armouring makes these binoculars comfortable to operate even in cold weather. They are waterproof and shockproof, feature a military reticle and compass (AN 7x50 MC only) and adhere to the latest military standards while remaining light and compact

| Optics | AN 8x30M22 | AN 7x50MC | AN 7x50M22 | AN 10x50M22 | AN 20x80M22 |
|---|---|---|---|---|---|
| Magnification (x) | 8 | 7 | 7 | 10 | 20 |
| Objective lens diameter (mm) | 30 | 50 | 50 | 50 | 80 |
| Focus range (m) | 3 - ∞ | 4 - ∞ | 5 - ∞ | 6 - ∞ | 18 - ∞ |
| Exit pupil (mm) | 4 | 7 | 7 | 5 | 4 |
| Eye relief (mm) | 17 | 23 | 23 | 19 | 16 |
| Field of view (°) | 8 | 7 | 8 | 7 | 3.3 |
| Field of view @ 1,000yd (feet) | 419 | 367 | 419 | 367 | 173 |
| Diopter adjustment range | ±5 | ±5 | ±5 | ±5 | ±10 |
| Twilight factor | 16 | 19 | 19 | 22 | 40 |
| Relative brightness | 14 | 51 | 51 | 25 | 16 |
| Transmission (%) | 90 | 95 | 95 | 95 | 95 |
| Lens coating | FMC | FMC | FMC | FMC | FMC |
| Reticle type | M22 | M22 | M22 | M22 | M22 |
| **Mechanics & Environmental** | | | | | |
| Interpupillary distance (mm) | 56-74 | 56-74 | 56-74 | 56-74 | 56-74 |
| Weight (g) | 545 | 1,150 | 1,141 | 1,135 | 2,498 |
| Dimensions | 110x156x55 | 209x157x85 | 200x195x70 | 195x180x70 | 298x230x95 |
| Illuminated compass | No | Yes | No | No | No |
| Tripod mountable | Yes | Yes | Yes | Yes | Yes |
| Battery type | na | LR44 | na | na | na |
| Operating temperature range (°C) | -40 to +70 | -40 to +70 | -45 to +75 | -45 to +75 | -40 to +80 |
| Storage temperature range (°C) | -45 to +75 | -45 to +75 | -45 to +80 | -45 to +80 | -45 to +85 |
| Humidity (%) | 98 | 98 | 98 | 98 | 98 |
| Nitrogen purged | Yes | Yes | Yes | Yes | Yes |
| Waterproofing | MIL-STD-810G | MIL-STD-810G | MIL-STD-810G | MIL-STD-810G | 6m /30 min |

M22 Reticle Display

AN 7x50 MC - Display

# BIG EYE 28x100ED

## LONG RANGE OBSERVATION BINOCULARS


The BIG EYE 28x100ED is designed to meet the most demanding specifications and is capable of withstanding maritime weather. It is useful as a marine binocular, a border guarding instrument, or with other applications where long-range viewing is required.

The BIG EYE 28x100ED has massive objective lenses, BAK-6 prisms and precision ground, multi-coated optics. Optical quality is extraordinary with true edge-to-edge image clarity. Oversized, individually focusing ocular lenses are set at an angle for comfortable viewing, and have foldable eyecups. The mounted device swivels a full 360° horizontally and 135° vertically. The instrument is nitrogen-filled to prevent fogging. The BIG EYE 28x100ED is supplied with a hard case equipped with a lock. It can also be coupled with one or two NVS 14 series night vision monoculars for night operation.

| **Optics** | **BIG EYE 28x100 ED** |
|---|---|
| Magnification (x) | 28 |
| Objective lens diameter (mm) | 100 |
| Focus range (m) | 20 - ∞ |
| Diopter adjustment range | -5 to +2 |
| Lens coating | FMC, ED Glass |
| **Mechanics & Environmental** | |
| Weight, g | 6,800 |
| Dimensions | 553x270x172 |
| Tripod mountable | Yes |
| Operating temperature range (°C) | -35 to +50 |
| Storage temperature range (°C) | -50 to +60 |
| Humidity (%) | 90 |
| Nitrogen purged | Yes |
| Waterproofing | 1m /30min |

Mounted on tripod

Night vision configuration

# SPOTTER SERIES

## SPOTTER LRF - SPOTTER MD - SPOTTER M

Newcon Optik continues to lead in the spotting scope segment with the introduction of two new Spotter Series scopes for 2015.

The Spotter LRF is a combined long range spotting scope and laser rangefinder—the first of its kind. This unique piece of equipment packs 15-45x variable magnification, fully multi-coated optics, an etched mil-dot reticle and, of course, a 5,500m Newcon Optik laser rangefinder (maximum range) into a fully mil-spec, lightweight housing. For long range shooting, tactical observation or perimeter security, there is no substitute for the Spotter LRF's combined set of features.

Rounding out the Spotter Series is the Spotter M—a new, lightweight, compact spotter that provides unrivalled image quality for a device of its size. Designed with strict weight requirements in mind, the Spotter M provides crystal clear 8x42 optics in a fully mil-spec package and weighs in at less than 300 grams.

SPOTTER LRF

SPOTTER MD

SPOTTER M

| Optics | SPOTTER LRF | SPOTTER MD | SPOTTER M |
|---|---|---|---|
| Magnification (x) | 15 - 45 | 20 - 60 | 8 |
| Objective lens diameter (mm) | 60 | 80 | 42 |
| Focus range (m) | 5 - ∞ | 5 - ∞ | 3 - ∞ |
| Eye relief, (mm) | 26-25 | 18 - 15 | 18 |
| Field of view @ 1,000yd min mag / max mag (feet) | 177 / 60 | 89 / 44 | 378 |
| Diopter adjustment range | ±7 | ±7 | ±3 |
| Reticle type | Mil-Dot OLED | Mil-Dot | Mil-Dot |
| **Mechanics & Environmental** | | | |
| Weight (g) | 1,300 | 1,300 | 290 |
| Dimensions (mm) | 298x73x120 | 335x170x95 | 142x50x59 |
| Digital camera compatible | Yes | Yes | No |
| Operating temperature range (°C) | -35 - to +55 | -30 - to +60 | -30 - to +60 |
| Storage temperature range (°C) | -40 - to +65 | -30 - to +60 | -30 - to +60 |
| Humidity (%) | 90 | 90 | 90 |
| Nitrogen purged | Yes | Yes | Yes |
| Waterproofing | IP67 | IP67 | IP67 |
| **Laser Rangefinder** | | | |
| Laser wavelength (nm) | 1550 | - | - |
| Measurement distance to 2.3x2.3m NATO (m) | 3,000 | - | - |
| Distance measuring accuracy (m) | ±1 | - | - |
| Azimuth measuring range (mils/°) | 6,400/360 | - | - |
| Elevation measuring range (mils/°) | 2,133 /120 | - | - |

# NC 3-12x56 · NC 5-20x56

LED-LIT TACTICAL VARIABLE ZOOM RIFLESCOPES



NC 3-12x56

NC 5-20x56

| Optics | NC 3-12x56 | NC 5-20x56 |
|---|---|---|
| Minimum magnification (x) | 3 | 5 |
| Maximum magnification (x) | 12 | 20 |
| Objective lens diameter (mm) | 56 | 56 |
| Exit pupil diameter @ minimum magnification (mm) | 13 | 13 |
| Exit pupil diameter @ maximum magnification (mm) | 4 | 4 |
| Field of view @100 yards @ minimum magnification (feet) | 36 | 21 |
| Field of view @100 yards @ minimum magnification (feet) | 9 | 5 |
| Eye relief (mm) | 100 | 100 |
| Diopter adjustment range | ±3 | ±3 |
| **Ballistics** | | |
| Reticle pattern | TMR | TMR |
| Lit reticle | Yes | Yes |
| Lit reticle colour | Red | Red |
| Adjustable reticle brightness | Yes | Yes |
| Windage adjustment step (mrad) | 1.0 | 1.0 |
| Windage adjustment range (mrad) | 120 | 120 |
| Elevation adjustment step (mrad) | 1.0 | 1.0 |
| Elevation adjustment range (mrad) | 340 | 340 |
| **Mechanics, Electronics & Environmental** | | |
| Dimensions (mm) | 347x77x77 | 386x85x83 |
| Weight (g) | 780 (w/o mount) | 900 (w/o mount) |
| Shock resistance (G) | 500 | 500 |
| Battery type | CR 2032 (3 V) | CR 2032 (3 V) |
| Battery life, maximum (hours) | 100 | 100 |
| Operating temperature range (°C) | -50 to +50 | -50 to +50 |
| Storage temperature range (°C) | -52 to +55 | -52 to +55 |
| Humidity (%) | 98 | 98 |
| Waterproofing | IP67 | IP67 |

The NC 3-12x56 and NC 5-20x56 are daytime riflescopes, both of which feature variable magnification and are designed for use on a variety of weapon platforms. Both riflescopes feature a Mil-Dot reticle positioned in the second focal plane of the eyepiece, ensuring permanent sizing of the reticle regardless of the variable magnification setting being utilized. The reticles are LED-lit with 7 adjustable brightness levels to choose from.

Ideal for acquiring small targets at long distances, the riflescope is equipped with a central system parallax adjustment, effective for ranges of 50 metres to infinity. Both riflescopes incorporate windage adjustment (the multi-revolving scheme) and elevation adjustment (single-revolving scheme). Both units have tactile/audible step adjustments.

With Weapon Mount

Windage/Elevation Adjustments

With NVS 27 for Night Operation

Delivery Set

# SIB 16x40WP

## GYRO STABILIZED BINOCULARS

| Optics | |
|---|---|
| Magnification (x) | 16 |
| Objective lens diameter (mm) | 40 |
| Focus range (m) | 30 - ∞ |
| Exit pupil (mm) | 3 |
| Eye relief (mm) | 15 |
| Field of view (°) | 3.4 |
| Field of view @ 1,000y (feet) | 178 |
| Diopter adjustment range | ±5 |
| Transmission (%) | 55 |
| Lens coating | FMC |
| Reticle type | None |
| **Mechanics, Electronics & Environmental** | |
| Interpupillary distance (mm) | 58 - 72 |
| Weight (g) | 2,200 |
| Dimensions (mm) | 230x190x120 |
| Illuminated compass | No |
| Tripod mountable | Yes |
| Battery type | 6x AA |
| Battery life (hours) | 6 |
| Operating temperature range (°C) | -30 to +55 |
| Storage temperature range (°C) | -50 to +70 |
| Humidity (%) | 98 |
| Waterproofing | IP66 |
| **Stabilization Specifications** | |
| Stabilization technology | Gyro |
| Centre resolution while stabilization activated (inches) | 10 |
| Angular velocity of panning (°/sec) | 0 - 6 |

The SIB 16x40WP gyro stabilized binoculars incorporate gyroscopic image stabilization technology that enables the user to observe distant objects from moving platforms without image resolution degradation caused by mechanical vibration or natural hand tremor. Combining fully coated optics with a high-speed gyro stabilizing system, the SIB 16X40WP binoculars are the ultimate instrument for long-range observation, tracking and surveillance.

Stabilized View

Delivery Set

NEWCON OPTIK

## *VISION IS OUR MISSION*

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