



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



Contract Holder
Contract GS-07F-334AA

NCAGE: L0076

VISION IS OUR MISSION



**SEEKER S
SEEKER M**

Page #: 5



**SPOTTER LRF
SPOTTER LRF PRO**

Page #: 6



**LRB 12K
LRB 12KNIGHT**

Page #: 7-8



COMPANY PROFILE

Newcon Optik is a world leader in the design and manufacture of laser rangefinders, image intensified night vision systems, thermal imagers, and other professional grade 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.



SENTINEL LRF

Page #: 9-10



NVS 15 SERIES

Page #: 20

TABLE OF CONTENTS


PRODUCT LINE	PAGES
LASER RANGEFINDERS	3 - 17
NIGHT VISION SYSTEMS	18 - 28
THERMAL IMAGING SYSTEMS	29 - 34
TACTICAL OPTICS	35 - 46

Newcon Optik is a world leader in the laser rangefinder field. Each of our highly ruggedized models utilizes advanced laser, electronic and optical technologies not only to measure distance, but to provide a variety of other geospatial target information.

In addition to having NATO target measurement ranges spanning 1,500 to 12,000 meters, many of our models can be used with our Android™ - based application, allowing for real-time target mapping and geospatial data communication via mobile phones and tablets.

LASER RANGEFINDERS



A sniper in a black uniform and beanie is lying prone on a forest floor covered in fallen leaves. He is aiming a long-barreled rifle equipped with a large scope and a laser rangefinder mounted on top. The background shows a dense forest of trees with bare branches, suggesting an autumn or winter setting. The scene is captured from a low angle, emphasizing the sniper's position and the length of the rifle.

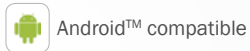
The SEEKER Series of devices are mountable laser rangefinders that boresight with any optical system—in this image, the sniper's scope. When the sniper acquires the target in his scope, he triggers the SEEKER and is fed accurate distance, inclination and azimuth data. Compatible with our Android™ - based application and other peripheral devices, the SEEKER series of LRFs represents Newcon Optik's newest addition to its industry-leading lineup.



The SEEKER S and SEEKER M represent Newcon Optik's next generation laser rangefinders. Both of these devices are mountable LRFs that can be boresighted to any optical system.

Whether mounted on a rifle, spotting scope, binoculars or thermal imager, these powerful devices instantly add long ranging capability in a compact, lightweight package. Used in tandem with an Android™-based application that runs on smartphones and tablets, the SEEKER S and SEEKER M provide real time distance, azimuth, inclination and GPS target data and allow for real time mapping and friendly force communication.

With NATO-standard target ranges of 2,000m and 3,000m respectively the SEEKER S and SEEKER M allow for simplified down range target data acquisition.



Rangefinder	SEEKER S	SEEKER M
Laser safety	Class 1, eye-safe	
Wavelength (nm)	905	1550
Measuring range, (m)*	10 - 2,000	10 - 3,000
Distance measuring accuracy (m)	±1	
Azimuth measuring range (mils/°)	6400/360	
Azimuth measuring accuracy (°)	±1	
Inclination measuring range (°)	±60	
Inclination measuring accuracy (°)	±0.5	
First/Last target logic	Yes	
Gating capability	Yes	
Interface	USB	
Visible Laser		
Laser safety	Class 3R	
Wavelength (nm)	635±10	
Optical Output Power (mW)	<5	
Mechanics, Electronics & Environmental		
Dimensions (mm)	115x70x63	
Weight without batteries (g)	300	
Weapon mountable	MIL-STD-1913	
Power Supply	2x CR2	
Battery life (# of measurements)	3,500	
Operating temperature range (°C)	-30 to +50	
Storage temperature range (°C)	-35 to +60	
Waterproofing	MIL-STD-810G	

*2.3m x 2.3m NATO standard target

The SPOTTER LRF and SPOTTER LRF PRO are the first of their kind—combined spotting scope/laser rangefinder systems. They make it faster, easier and more accurate than ever before to acquire range, inclination and azimuth data on long distance targets.

Both models are built to MIL-STD-810G standards and are fully ruggedized to handle real-world military deployment. With 15-45x variable magnification, fully multi-coated optics, an etched mil-dot reticle, USB output and LED display, the SPOTTER LRF and SPOTTER LRF PRO are among the most versatile optics you can bring with you to the field. Both are compatible with an Android™ - based application and other peripheral devices.



Android™ compatible

Optics	SPOTTER LRF	SPOTTER LRF PRO
Magnification (x)	15 - 45	
Objective lens diameter (mm)	60	
Field of view (°)	3.4 (15x) - 1.2 (45x)	
Eye relief (mm)	25-26	
Diopter adjustment range	±5	
Rangefinder		
Eye safety	Class 1, eye-safe	
Wavelength (nm)	905	1550
Measuring distance range (m)*	10 - 2,000	10 - 3,000
Distance measurement accuracy (m)	±1	
Azimuth measurement accuracy (°)	±1	
Inclination measurement accuracy (°)	±1	
First/last target logic	Yes	
Display		
Display type	OLED	
Computer output	USB	
Last 10 readings recall	Yes	
Low battery indicator	Yes	
Mechanics, Electronics & Environmental		
Dimensions (mm)	280x140x105	
Weight without batteries (g)	1,590	
Power supply	2x CR123 Lithium	
Battery life (# of measurements)	5,000	
Operating temperature range (°C)	-35 to +55	
Storage temperature range (°C)	-45 to +65	
Waterproofing	MIL-STD-810G	

*2.3m x 2.3m NATO standard target





The LRB 12K is built to outperform any handheld laser rangefinder binocular available today. Packing a virtually endless set of performance features into a MIL-SPEC form factor, The LRB 12K 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 and a crystal clear LED display.

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

The LRB 12K 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.



Android™ compatible

Optics	LRB 12K	LRB 12KNIGHT
Magnification (x)	7	7 / 6 (night)
Objective lens diameter (mm)	42	42
Field of view (°)	6	6 / 7 (night)
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)*	20 - 12,000	20 - 12,000
Distance measurement accuracy (m)	±1	±1
Azimuth measurement accuracy (°/mils)	±1/ 17.5 RMS	±1/ 17.5 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 compatibility	Android™ PLGR, Bal Comp, PC, BT	Android™ 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 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



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)	210x178x85	210x178x85
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	-25 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	-	25
Auto-gating	-	Optional



LASER RANGEFINDERS

SENTINEL LRF

LASER RANGEFINDERS

LONG RANGE THERMAL BIOCULAR
ADVANCED LASER RANGEFINDER
ENHANCED DETECTION CAPABILITY
ERGONOMIC DESIGN
PORTABLE

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. Its small size, lightweight and excellent power efficiency make it a portable force multiplier ready for deployment in any environmental conditions.

The SENTINEL LRF can detect objects at remote distances 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 version	384 or 640
Operating wavelength (µ)	7 - 14
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)	25
Dioptric correction	-6 to +2
Zoom	2x, 4x, (8x optional)
Mechanics, Electronics & Environmental	
Dimensions (mm)	197x145x90
Weight without batteries (g)	1,375
Battery type	6x AA (4x AA optional)
Battery life (hours)	8
Operating Temperature (°C)	-40 to +50
Laser Rangefinder	
Laser wavelength (nm)	1550
Distance measurement range (m) **	10 - 3,000
Distance measuring accuracy (m)	±1
Azimuth measuring range (mils/°)	6,400/360
Elevation measuring range (mils/°)	±1067 / ±60

* Detection, recognition, identification range to human with 640 version

** 2.3m x 2.3m NATO standard target



TVSD
Digital recording module



Mounted on TACT-3S Tripod





We are proud to introduce our newest and most advanced laser rangefinder monocular we have ever produced—the LRM 3500M. This device builds on years of experience designing and manufacturing professional grade LRFs, and has a feature set never before found in a pocket-sized unit.

Like our LRB 12K series, the LRM 3500M has an in-built GPS receiver, allowing users to acquire their own and their target's GPS coordinates. Its eye-safe 1550nm laser cannot be detected by enemy night vision devices, and it can measure distance to a NATO-standard target up to 3,500m. The LRM 3500M has a full MIL-SPEC design making it rugged enough to handle what any operator can throw its way. In addition to its long measuring range it also has a digital magnetic compass, inclinometer, sharp OLED display and crystal clear optics. The data output port enables communication with a variety of peripheral devices including smartphones and tablets running an Android™ - based application.



Android™ compatible

Optics	
Magnification (x)	6.5
Objective lens diameter (mm)	30
Field of view (°)	7
Eye relief (mm)	20
Diopter adjustment range	±5
Rangefinder	
Eye safety	Class 1, eye-safe
Wavelength (nm)	1550
Measuring distance range (m)*	10 - 3,500
Distance measurement accuracy (m)	±1
Azimuth measurement accuracy (°/mils)	±1 / 17.5
Inclination measurement accuracy (°/mils)	±0.5 / 8.8
Speed detection	Yes
First/last target logic	Yes
Scan mode	Yes
Last 10 readings recall	Yes
Distance between objects	Yes
Horizontal distance between objects	Yes
Azimuth difference between objects	Yes
Inclination difference between two objects	Yes
Height difference between objects	Yes
User GPS coordinates	Yes
Target GPS coordinates	Yes
Mechanics, Electronics & Environmental	
Display type	OLED
Computer output, type	USB
Dimensions (mm)	123x110x57
Dimensions with no sleeve (mm)	118x107x54
Weight without batteries (g)	460
Power supply	2x CR123 Lithium
Battery life (# of measurements)	5,000
Operating temperature range (°C)	-35 to +55
Storage temperature range (°C)	-40 to +65
Waterproofing	MIL-STD-810G

*2.3m x 2.3m NATO standard target

The LRB 6K 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 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.

 Android™ compatible

Optics	LRB 6K	LRB 4000CI
Magnification (x)	7	7
Objective lens diameter (mm)	42	50
Field of view (°)	6	5
Eye relief (mm)	20	18
Diopter adjustment range	±5	±4
Interpupillary distance (mm)	58 - 72	58 - 72
Rangefinder		
Eye safety	Class 1, eye-safe	Class 1, eye-safe
Wavelength (nm)	1550	905
Measuring distance capability (m)*	6,000	4,000
Distance measurement accuracy (m)	±1	±1
Azimuth measurement accuracy (° /mils)	±1 / 17	±1 / 17
Inclination measurement accuracy (° /mils)	±0.5 / 8.8	±0.5 / 8.8
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		
Display type	OLED	Back-lit LCD
Meters/yards display	Yes	Yes
Computer output, type	RS-232, USB, NMEA	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)	210x178x85	210x150x80
Weight without batteries (g)	1,580	1,300
Power supply	2CR5 non-magnetic	9V non-magnetic
Battery life (# of measurements)	5,000	5,000
Operating temperature range (°C)	-40 to +60	-25 to +50
Storage temperature range (°C)	-45 to +60	-45 to +55
Waterproofing	MIL-STD-810G (IP 67)	IP 66

*2.3m x 2.3m NATO standard target



LRB 4000CI shown in photo



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 optional high definition OLED display.

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 compatibility	-
Display	
Backlit LCD display	Yes
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	Yes (optional 1m, 30min available)

*2.3m x 2.3m NATO standard target



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. A 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 / 17.5
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)	-45 to +65	-45 to +65	-45 to +65
Waterproofing	IP63	IP63	IP66

*2.3m x 2.3m NATO standard target





The LRB 20,000C 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
Wavelength (nm)	1060
Measuring distance range (m)	100 - 20,000
Azimuth measurement accuracy (°)	1
Inclination measurement accuracy (°)	1
First/last target logic	Yes
Peripheral compatability	PC, Angular mount
Mechanics, Electronics & Environmental	
Computer output, type	RS-232
Low battery indicator	Yes
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

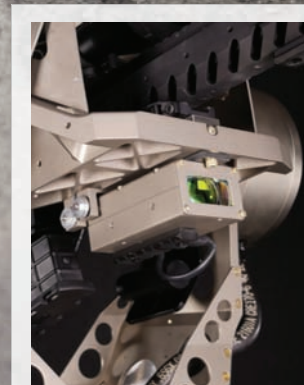
Designed for OEM integration, Newcon Optik's LRF module series provides accurate measurements for unmanned vehicles, fire control systems, industrial machinery, border surveillance stations and countless other applications. The newly improved MICRO series consists of four modules, each of which is barely 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.

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

Rangefinder	LRF MICRO LRF MICRO CI	LRF MICRO (1550) LRF MICRO (1550) CI
Eye safety	Class 1, eye-safe	Class 1, eye-safe
Wavelength (nm)	905	1550
Distance measurement range, (m) *	10 - 2,000	10 - 3,000
Distance measurement range, (m) **	10 - 1,000	10 - 1,000
Distance measurement range, maximum (m)	5,500	5,500
Distance measurement accuracy, (m)	±1	±1
Azimuth measurement accuracy (°)	±1 (CI only)	±1 (CI only)
Inclination measurement accuracy (°)	±0.5 (CI only)	±0.5 (CI only)
Speed detection	Yes	Yes
Distance measuring time, (seconds)	0.1	0.1 - 1.1
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)	88x48x30	88x48x30
Weight (g)	107 / 120 (CI)	107 / 120 (CI)
Interface	UART, RS-232	UART, RS-232
Power source	5 - 15V DC	5 - 15V DC
Operating temperature range (°C)	-40 to +50	-40 to +50
Storage temperature range (°C)	-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



Typical use of Mod 6EC

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) *	10 - 4,000	1 - 6,500
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)	-45 to +65	-45 to +65
Waterproofing	IP67	IP67

*2.3m x 2.3m NATO standard target





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 14-3AG shown in photo

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 265g, 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/AGBW	NVS 14-3XT
Generation	3	3
Photocathode material	GaAs	GaAs
IIT resolution, minimum (lp/mm)	64	64
Signal to noise ratio, minimum	25	25
Auto-gating	Yes	No
Black & white phosphor	AGBW only	No
Optics		
Magnification (x)	1	1
Field of view (°)	40	40
Objective F#	1.2	1.2
Objective focal length (mm)	25	25
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)	104x49x69	118x69x48
Weight without batteries (g)	265	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



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/AGBW	NVS 15-3XT
Generation	3	3
Photocathode material	GaAs	GaAs
IIT resolution, minimum (lp/mm)	64	64
Signal to noise ratio, minimum	25	25
Auto-gating	Yes	No
Black & white phosphor	AGBW only	No
Optics		
Magnification (x)	1	1
Field of view (°)	40	40
Objective F#	1.2	1.2
Objective focal length (mm)	25	25
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)	680	725
Interpupillary distance (mm), [optional]	52 - 74, [52 - 80]	52 - 74, [52 - 80]
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



NVS 15-3AGBW shown in photo



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 7-3AG	NVS 7-3AGBW
Generation	3	3
Photocathode material	GaAs	GaAs
IIT resolution, minimum (lp/mm)	64	64
Signal to noise ratio, minimum	25	25
Auto-gating	Yes	Yes
Auto-gating with black & white phosphor	No	Yes
Optics		
Magnification (x)	1	1
Field of view (°)	40	40
Objective F#	1.2	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)	150x120x55	150x120x55
Weight without batteries (g)	480	480
Interpupillary distance (mm)	57-73	57-73
Built-in IR illuminator	Yes	Yes
Battery type	2x AA	2x AA
Battery life (hours)	80	80
Operating temperature range (°C)	-50 to +55	-50 to +55
Storage temperature range (°C)	-55 to +60	-55 to +60
Waterproofing	MIL-STD-810G	MIL-STD-810G



Based on the popular NVS 7-3AG 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. All models are auto-gated.

The NVS 7-3/4xAG is the smallest and lightest handheld night vision binocular in its class while the NVS 7-3/5xAG provides an excellent visibility range while remaining compact and functional and the NVS 7-3/8xAG 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 7-3/4xAG



NVS 7-3/5xAG



NVS 7-3/8xAG

IIT	NVS 7-3/4xAG	NVS 7-3/5xAG	NVS 7-3/8xAG
Generation	3	3	3
Photocathode material	GaAs	GaAs	GaAs
IIT resolution, minimum (lp/mm)	64	64	64
Signal to noise ratio, minimum	25	25	25
Auto-gating	Yes	Yes	Yes
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#	2.0	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)	640	811	1,609
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



NVS S Mount

Shroud compatible helmet mount for monoculars and goggles



NVS H Mount

PASGT compatible helmet mount for monoculars and goggles



NVS FS Mount

Flip-to-side, quick release Picatinny weapon mount for monoculars



NVS DS and NVS SW

Demist Shield to prevent eye-piece fogging and sacrificial window to protect objective lens of monoculars and goggles



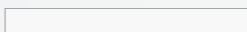
NVS Bridge

Connecting bridge for conversion of two monoculars into dual tube goggles



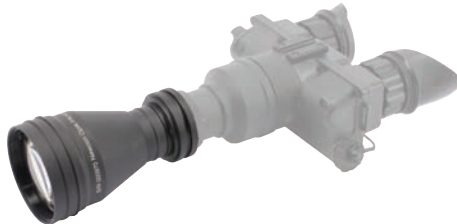
NVS Cam/Video

Connects monoculars to video and still cameras





Hard Case (various sizes)
MIL-SPEC case to protect any device during transportation and storage



NVS Lens 3x
Afocal 3x magnification add-on lens for monoculars and goggles



NVS Lens 4x
Catadioptric 4x magnification add-on lens for monoculars and goggles



NVS U Coupler Set
Connects monoculars and goggles to any Newcon Optik LRF or day optic for night operation



NVS Lens 5x
Catadioptric 5x magnification add-on lens for monoculars and goggles



NVS Lens 8x
Catadioptric, tripod mountable 8x magnification add-on lens for monoculars and goggles

NVS 27M shown in photo



The NVS 27 is Newcon Optik's most advanced night vision clip-on series to date and represents a significant improvement on other clip-on systems currently available. 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 series 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	NVS 27M
Generation	3	3
Photocathode material	GaAs	GaAs
IIT resolution, minimum (lp/mm)	64	64
Signal to noise ratio, minimum	25	25
Auto-gating	Yes	Yes
Auto-gating with black & white phosphor	Optional	Optional
Optics		
Magnification (x)	1	1
Field of view (°)	12	12
Objective F#	1	1.5
Objective focal length (mm)	78	78
Focus range (m)	10 to ∞	10 to ∞
Magnification compatibility, recommended (x)	1 - 20	1 - 20
Mechanics, Electronics & Environmental		
Dimensions (mm)	240x97x107	220x87x90
Weight without batteries (g)	1,400	970
Standard mount system	MIL-STD-1913	MIL-STD-1913
Built-in IR illuminator	Optional	Optional
Battery type	1x AA or 1x CR123	1x AA or 1x CR123
Battery life (hours)	60	60
Operating temperature range (°C)	-55 to +65	-55 to +65
Storage temperature range (°C)	-60 to +70	-60 to +70
Waterproofing	10m, 1h	10m, 1h

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 DN 493_6x is a member of Newcon Optik's next generation night vision riflescope series. This 6x magnification riflescope features a manual gain control adjustment; an advanced Gen 3 image intensifier tube; a MIL-DOT, LED-lit reticle with adjustable brightness; a Picatinny rail mount; removable infrared illuminator; and tactile windage and elevation adjustments. This scope is easy to service and maintain, and presents one of the lowest lifetime costs of ownership amongst riflescopes in its class.

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

IIT	DN 463	DN 493_6x
Generation	3	3
Photocathode material	GaAs	GaAs
IIT resolution, minimum (lp/mm)	64	64
Signal to noise ratio, minimum	25	25
Auto-gating	Optional	Optional
Auto-gating with black & white phosphor	Optional	Optional
Optics		
Magnification (x)	4	6
Field of view (°)	11	6.3
Objective F#	1.68	120
Objective focal length (mm)	101.5	165
Focus range (m)	8 to ∞	30 to ∞
Eye relief (mm)	50	45 to 90
Diopter adjustment range	-3.5 to +3.5	-3 to +4
Mechanics, Electronics & Environmental		
Dimensions (mm)	275x95x105	310x98x90
Weight without batteries (g)	1,249	1,100
Standard mount system	MIL-STD-1913	MIL-STD-1913
Built-in IR illuminator	Yes (removable)	Yes (removable)
Battery type	1x AA or 1x CR123A	2x AA
Battery life without IR (hours)	15 with AA 24 with CR123 Lithium	60
Operating temperature range (°C)	-30 to +40	-40 to +50
Storage temperature range (°C)	-40 to +50	-45 to +55
Waterproofing	MIL-STD-810G	MIL-STD-810G
Ballistics		
Reticle pattern	Mil-Dot	Mil-Dot
Lit reticle	Yes	Yes
Adjustable reticle brightness	Yes	Yes
Windage adjustment step (MOA)	0.42	0.34
Elevation adjustment step (MOA)	0.42	0.34

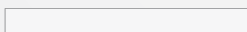




The NVS 6-3XT and NVS 9-3AG ANVIS goggles enable pilots to operate their aircraft in the darkest flight environments. These goggles allow aviators to navigate at the nap of the earth, take off, land and perform other operations that are otherwise impossible at night without the use of a light source.

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 6-3XT	NVS 9-3AG
Generation	3	3
Photocathode material	GaAs	GaAs
IIT resolution, minimum (lp/mm)	64	64
Signal to noise ratio, minimum	25	25
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	+2 to -6	+2 to -6
Filter (Available)	Leaky green or Minus blue	
Mechanics, Electronics & Environmental		
Dimensions (mm)	116x124x61	116x124x61
Weight without batteries (g)	570	570
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

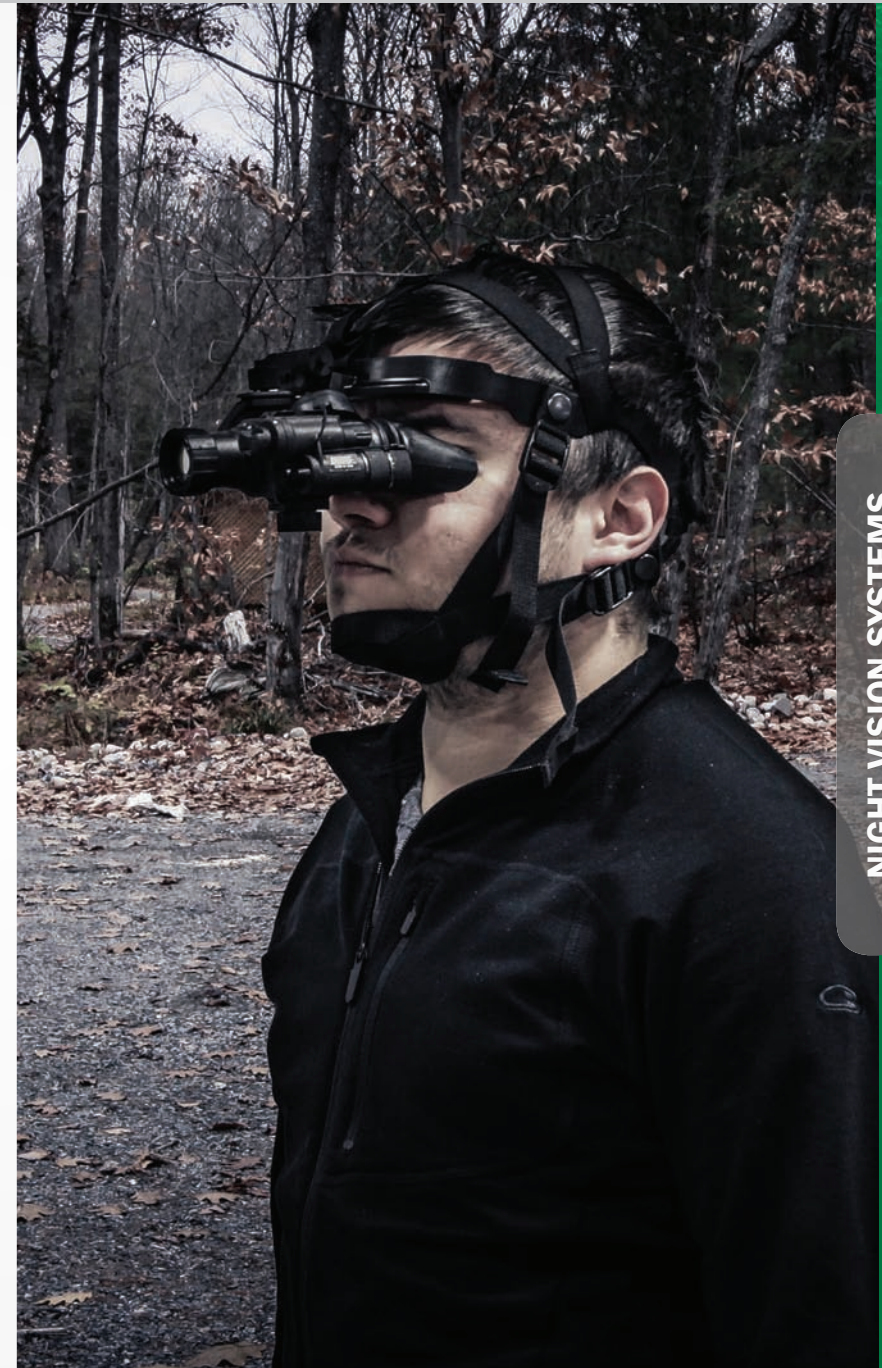


The NV 207-G2 and NV 66-G2 provide optical advantage in a variety of situations in which a night vision capability is required. These Gen 2+ systems do not require an export permit.

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

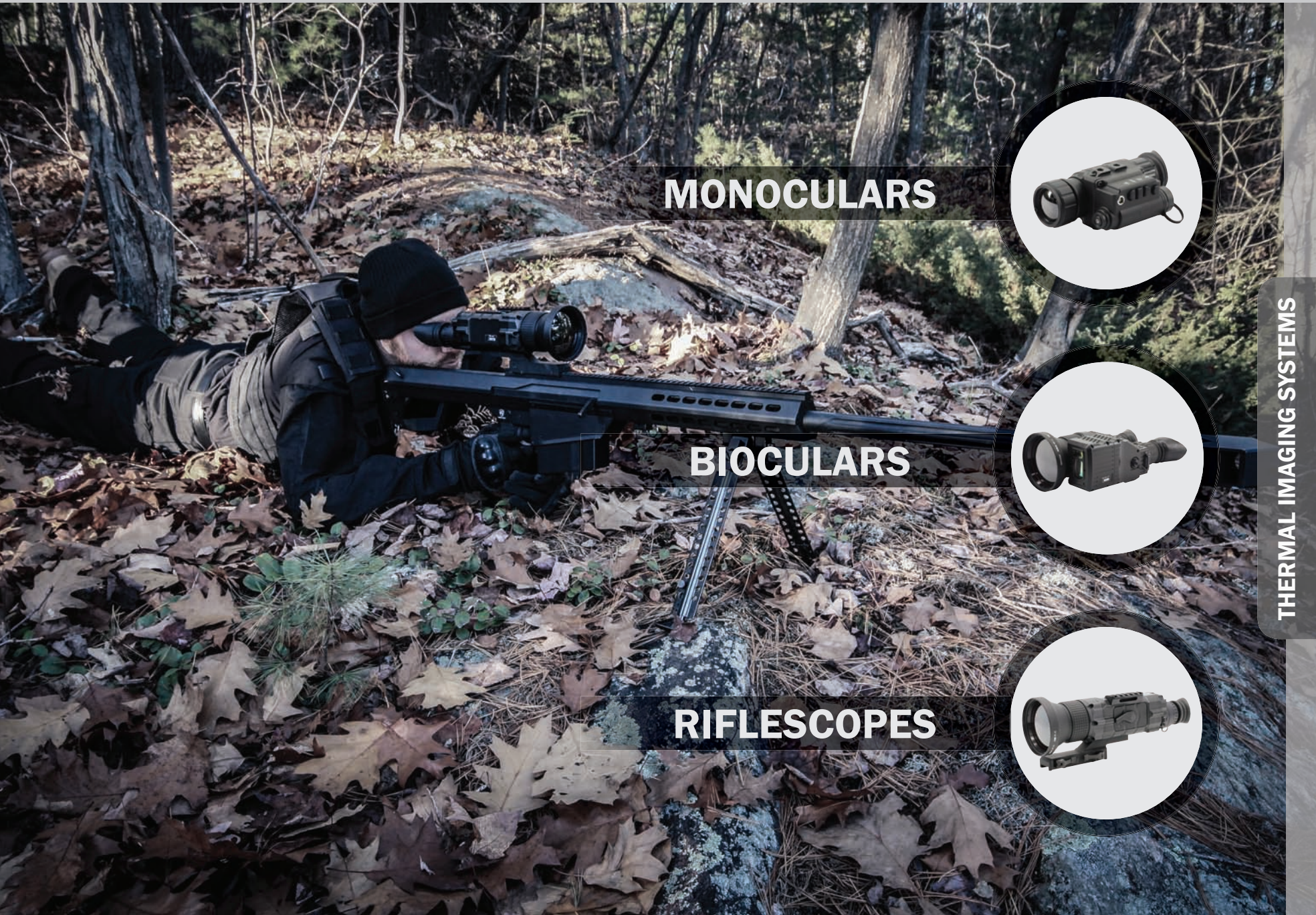
IIT	NV 207-G2	NV 66-G2
Generation	2+	2+
Photocathode material	S-25	S-25
IIT resolution, minimum (lp/mm)	53	53
Signal to noise ratio, minimum	18	18
Optics		
Magnification (x)	1	1
Field of view (°)	40	40
Objective F#	1.17	1.2
Objective focal length (mm)	27.5	27.5
Focus range (m)	0.25 - ∞	0.25 - ∞
Eye relief (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



A soldier in full tactical gear, including a helmet with a thermal imaging device mounted on it, is shown in profile. The soldier is holding a rifle and is positioned in front of a brick wall. The thermal imaging device is a large, cylindrical unit with a lens, mounted on the front of the helmet. The soldier's gear includes a vest and a helmet with various attachments. The background is a textured brick wall.

THERMAL IMAGING SYSTEMS





MONOCULARS



BIOCULARS



RIFLESCOPES



THERMAL IMAGING SYSTEMS



SENTINEL shown in photo

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. Its 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 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.

The SENTINEL contains the same detection features as the SENTINEL LRF without the laser rangefinder capability.

Sensor	SENTINEL	SENTINEL LRF
Resolution version	384 or 640	384 or 640
Operating wavelength (μ)	7 - 14	7 - 14
Video output	PAL or NTSC	PAL or NTSC
DRI range (m)*	2,500/625/313	2,500/625/313
Optics		
Objective focal length (mm)	75	75
Field of view (°)	7x6 or 8x7	7x6 or 8x7
Eye relief (mm)	35	25
Dioptric correction	-6 to +2	-6 to +2
Zoom	2x, 4x, (8x optional)	2x, 4x, (8x optional)
Mechanics, Electronics & Environmental		
Dimensions (mm)	208X146X90	197x149x90
Weight without batteries (g)	1,030	1,395
Battery type [optional]	6x AA	6x AA [4x AA]
Battery life (hours)	8	8
Operating Temperature (°C)	-40 to +50	-40 to +50
Laser Rangefinder		
Laser wavelength (nm)	-	1550
Distance measurement range, (m) **	-	10 - 3,000
Distance measuring accuracy (m)	-	±1
Azimuth measuring range (mils/°)	-	6,400/360
Elevation measuring range (mils/°)	-	2,133 /120

*Detection, recognition, identification range to human with 640 version

** 2.3m x 2.3m NATO standard target



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 11M
Resolution version	384
Operating wavelength (μ)	7 - 14
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 ($^{\circ}$)	22x16.5
Eye relief (mm)	25
Dioptric correction	-6 to +2
Zoom	2x, 4x
Mechanics, Electronics & Environmental	
Dimensions (mm)	142x73x50
Weight without batteries (g)	396
Battery type	18500 (3.7V)
Operating Temperature ($^{\circ}$ C)	-40 to +60

*Detection, recognition, identification range to human with 384 version



Shown with a 2x afocal lens



TVS 13M shown in photo

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 team 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 applications.

The TVS 13M comes standard with a Picatinny 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
Resolution versions	384 or 640
Operating wavelength (µ)	7 - 14
Video Output	PAL or NTSC
DRI range (m)*	1,800/450/225
Optics	
Objective focal length (mm)	54
Field of view (°)	12x9
Eye relief (mm)	30
Dioptric correction	-6 to +2
Zoom	2x, 4x, (8x optional)
Mechanics, Electronics & Environmental	
Dimensions (mm)	280x68x78
Weight without batteries (g)	950
Battery type	6x AA
Battery life (hours)	8
Operating Temperature (°C)	-40 to +60
Ballistics	
# of preprogrammed reticles	8
Programmable ballistic profiles	4
Automatic reticle colour inversion	Yes
Scope level warning	Available
Proximity sensor	Yes

*Detection, recognition, identification range to human with 640 version

Sensor	TVS 13M (75)
Resolution versions	384 or 640
Operating wavelength (μ)	7 - 14
Video Output	PAL or NTSC
DRI range (m)*	2,500/625/313
Optics	
Objective focal length (mm)	75
Field of view (°)	8x7
Eye relief (mm)	30
Dioptic correction	-6 to +2
Zoom	2x, 4x, (8x optional)
Mechanics, Electronics & Environmental	
Dimensions (mm)	282X112X90
Weight without batteries (g)	1,330
Battery type	6x AA
Battery life (hours)	8
Operating Temperature (°C)	-40 to +60
Ballistics	
# of preprogrammed reticles	8
Programmable ballistic profiles	4
Automatic reticle colour inversion	Yes
Scope level warning	Available
Proximity sensor	Yes

*Detection, recognition, identification range to human with 640 version



TVS D
Digital recording module



THERMAL IMAGING SYSTEMS

TVS 13M (75) shown in photo

TACTICAL OPTICS

TACTICAL OPTICS



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 now has in-built GPS to determine the precise coordinates of detected threats.

Optics	
Magnification (x)	7
Optical sensor type, resolution (pixels)	CCD, 752x582
Field of view (°)	5.2x4
Minimum illumination (lux)	0.005
Diopter adjustment range	± 4
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	
GPS	Yes
Dimensions (mm)	170x142x70
Weight without batteries (g)	1,200
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



NC 1x21 with 3x magnifier shown in photo



NC 1x21

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.

HDS 3AA

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	127x54x65
Weight without batteries (g)	132	364
Shock resistance (G)	500	500
Battery type	1x CR2032	1x AA
Operating temperature range (°C)	-25 to +60	-40 to +60
Storage temperature range (°C)	-30 to +70	-55 to +75
Humidity (%)	95	95
Waterproofing	3m / 1h	10m / 1h



The NC 4x32 and NC 6x50 are trusted members of 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	44
Eye relief (mm)	72	72
Diopter adjustment range	±3	±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)	0.33	0.25
Elevation adjustment step (MoA)	0.33	0.25
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 brightness (hours)	150	150
Operating temperature range (°C)	-30 to +50	-30 to +50
Storage temperature range (°C)	-35 to +55	-35 to +55
Humidity (%)	95	95
Waterproofing	3m, 30min	3m, 30min

NC 4x32



NC 6x50



TACTICAL OPTICS

Both sights shown with optional NC BURD

SPOTTER ED shown in photo



TACTICAL OPTICS

Newcon Optik's spotting scope series takes a big leap forward in 2016 with the introduction of the SPOTTER LRF and SPOTTER LRF PRO, the first of their kind combined spotting scope/laser rangefinder systems. They make it faster, easier and more accurate than ever before to acquire range, inclination and azimuth data on long distance targets. Both models are built to MIL-STD-810G standards and are fully ruggedized to handle real-world military deployment. With 15-45x variable magnification, fully multi-coated optics, an etched mil-dot OLED reticle, USB output and LED display, the SPOTTER LRF and SPOTTER LRF PRO are among the most versatile optics you can bring with you to the field. Both are compatible with our Android™ - based application and other peripheral devices.

The Spotter ED and Spotter M continue to provide world class optical quality in fully ruggedized, portable form factors—the Spotter M weighs in at under 300g.

Optics	SPOTTER ED	SPOTTER M
Magnification (x)	20 - 60	8
Objective lens diameter (mm)	85	42
Focus range (m)	7 - ∞	3 - ∞
Eye relief, (mm)	20 - 18	18
Field of view @ 1,000yd min / max (feet)	105 / 53	378
Diopter adjustment range	±5	±3
Reticle type	M22	M22
Mechanics & Environmental		
Weight (g)	1,300	290
Dimensions (mm)	432x105x174	142x50x59
Digital camera compatible	Yes	No
Operating temperature range (°C)	-40 - to +60	-30 - to +60
Storage temperature range (°C)	-40 - to +60	-30 - to +60
Humidity (%)	90	90
Nitrogen purged	Yes	Yes
Waterproofing	IP67	IP67



SPOTTER M

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 10D 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 10D
Eye safety	IIIb	IIIb
Distance, high / low (m)*	V:150/500 ; IR: 200/2,000	IR:1,000
Beam divergence, FWHM (mrad)	0.5	0.3
Spot size @ 100m (mm)	50	15 (at 50m)
Wavelength (nm)	V:532 ±10 / IR: 830 ±15	IR:850 ±10
Infrared Laser Illuminator		
Eye safety	IIIb	-
Distance, high / low (m)	V:150/500 ; IR: 200/2,000	-
Beam divergence, FWHM (mrad)	1 - 105	-
Spot size @ 100m, min divergence / max divergence (cm)	5	-
Wavelength (nm)	V:532 ±10 / IR: 830 ±15	-
Ballistics		
Windage adjustment step (mrad)	0.5	0.5
Windage adjustment range (mrad)	40	±20
Elevation adjustment step (mrad)	0.5	0.5
Elevation adjustment range (mrad)	40	±20
Retention after 1,000 shots (mrad)	±0.5	±0.5
Mechanics, Electronics & Environmental		
Dimensions (mm)	100x80x40	114x45x32
Weight without batteries (g)	278	150
Shock resistance (G)	300	300
Quick release	Yes	Yes
Battery type	CR 123 or AA	CR 123
Battery life, high / low (hours)	8 / 16	10
Operating temperature range (°C)	-10 to +50	-40 to +60
Storage temperature range (°C)	-40 to +60	-40 to +60
Waterproofing	IP67	45m/1h

*V - Visible, IR - Infrared



LAM 3G shown in photo

NCFL 10 shown in photo



The NCFL Series is comprised of compact, mountable illumination/aiming systems that can be utilized on a wide variety of weapons including handguns and assault rifles. Each model in this series has a distinctly unique feature set, ensuring there is an NCFL unit perfectly suited to every application.

NCFL 10: The only compact illuminator/aimer to feature a built-in digital camera, that allows continuous video recording of armed encounters. This model also has a visible light illuminator and visible laser aimer.

NCFL 9GI & NCFL 9RI: These models both have ultra-bright visible light illuminators, infrared aiming lasers for use with night vision devices and visible laser aimers (green in the GI variant and red in the RI variant).

NCFL 9G & NCFL 9R: These models both have ultra-bright visible light illuminators and visible aiming lasers (green in the G variant and red in the R variant).

NCFL 9: This model has an ultra-bright visible light illuminator and an infrared laser for use with night vision devices.

TACTICAL OPTICS

	NCFL 9	NCFL 9 R	NCFL 9 G	NCFL 9 RI	NCFL 9 GI	NCFL 10
Modes	Visible light Infrared Laser Aimer	Visible Light Red Laser Aimer	Visible Light Green Laser Aimer	Visible Light Red Laser Aimer IR Laser Aimer	Visible Light Green Laser Aimer IR Laser Aimer	Digital Camera Visible Light Red Laser Aimer
Color	Black	Black		Black		Black
Flashlight	Cree Q5 >225 lumens	Cree Q5 >225 lumens		Cree Q5 >225 lumens		Cree Q5 >225 lumens
Laser	650±10nm (RI) or 530±10nm (GI), <1mW/<5mW or 835±10nm, <10mW					
Mounting requirements	MIL-STD-1913 Picatinny Mount					
Battery	2 x CR 123 Lithium	2 x CR 123 Lithium		2 x CR 123 Lithium		2 x CR 123 Lithium
Hours of operation (hours)	more than 5	more than 5		more than 5		more than 5
Operating temperature range (°C)	-10 to +50	-10 to +50		-10 to +50		-10 to +50
Storage temperature range (°C)	-20 to +60	-20 to +60		-20 to +60		-20 to +60
Dimensions (mm)	88x49x37 mm	88x49x37 mm		88x49x37 mm		85x50x37 mm
Weight w/o batteries (g)	146	146		146		154
Built-in camera	No	No		No		Yes



The IRIL 1000M long range infrared aimer and illuminator now features a high powered visible laser aiming channel. 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 a Picatinny quick release mount, the IRIL series of illuminators can be mounted on virtually any rifle platform, or crew-served weapon system. The IRIL 1000M has 5 in-built laser patterns to select from to aid in laser identification.

The IRIL 1000M 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.

Visible Laser Aimer	IRIL 1000M
Eye safety	3R
Distance, high (m)	500 (night)
Beam divergence, FWHM (mrad)	1
Spot size @ 100m (cm)	100
Wavelength (nm)	532 ±10
Infrared aser Illuminator	
Eye safety	4
Distance, high (m)	30,000
Beam divergence, FWHM (mrad)	2 - 60
Spot size @ 100m, min divergence / max divergence (mm)	200-6000
Wavelength (nm)	810 ±10
Ballistics	
Windage adjustment step (MOA)	1.6
Windage adjustment range (MOA)	±120
Elevation adjustment step (MOA)	1.6
Elevation adjustment range (MOA)	±120
Retention after 1,000 shots (MOA)	2
Mechanics, Electronics & Environmental	
Laser patterns	Optional
Dimensions (mm)	154x65x57
Weight without batteries (g)	425
Shock resistance (G)	500
Quick release	Yes
Battery type	1x 18650 Lithium
Battery life, high / low (hours)	4 / 8
Operating temperature range (°C)	-20 to +50 (IR) -10 to +50 (Green)
Storage temperature range (°C)	-40 to +60
Waterproofing	IP67



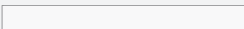
AN 10x50M22

AN 7x50MC

TACTICAL OPTICS

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	7.14	7	5	4
Eye relief (mm)	17	23	23	19	16
Field of view (°)	8	7.5	8	7	3.3
Field of view @ 1,000yd (feet)	419	396	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	1,046	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

The AN series of binoculars incorporates Porro 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



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



Shown with optional weatherproof case





HDS 3x Lens

Flip-to-side 3x magnification add-on lens for use with HDS 3AA



HDS 5x Lens

Flip-to-side 5x magnification add-on lens for use with HDS 3AA



TACT 3-S Tripod

MIL-SPEC non-magnetic tripod for use with all tripod-mountable devices



NC BURD

Back up red dot sight for use as a standalone aimer or back up to other optics (mountable on any device with Picatinny rail)



NC 4x32 ARF & NC 6x50 ARF

Anti-reflection filter for use with NC 4x32 and NC 6x50 (ARF available for other devices upon request)



30mm QR Scope Mount & 34mm QR Scope Mount

Quick-release Picatinny sniper scope mounts

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.

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 @ 1,000yd (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





VISION IS OUR MISSION

EVERY EFFORT HAS BEEN MADE TO ENSURE THE ACCURACY OF THE DETAILS CONTAINED HEREIN. WE RESERVE THE RIGHT TO VARY, MODIFY OR IMPROVE ANY SPECIFICATION AND/OR DESIGN AT ANY TIME WITHOUT PRIOR NOTICE. WE ARE NOT RESPONSIBLE FOR PRINTING ERRORS.

Android™ is a trademark of Google Inc.

© Newcon International Ltd., Toronto, Canada
ALL RIGHTS RESERVED