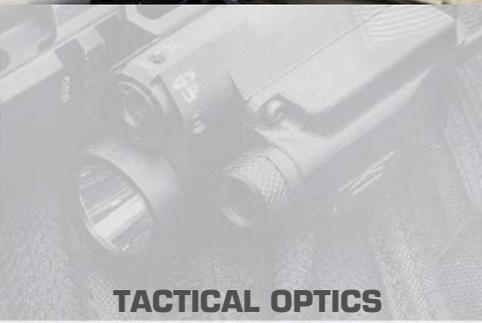




LASER RANGEFINDERS



NIGHT VISION SYSTEMS



TACTICAL OPTICS



THERMAL IMAGING SYSTEMS



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.

Featured



SPOTTER LRF • SPOTTER LRF PRO

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LRM 3500M

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All specifications shown in this catalogue are indicative for marketing purposes only and are subject to change at any time



LASER RANGEFINDERS



The SPOTTER LRF and SPOTTER LRF PRO are the first of their kind: A combined spotting scope/laser rangefinder system that enables faster, easier and more accurate acquisition of range, inclination and azimuth data of 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, ballistic calculators and other peripheral devices.

Optics	SPOTTER LRF	SPOTTER LRF PRO
Magnification (x)	15 - 45	
Objective lens (mm)	60	
Exit pupil diameter (mm)	4.17 - 1.34	
Eye relief (mm)	25-26	
Field of view (°)	3.4 (15x) - 1.2 (45x)	
Axial resolution (center), (arcsec)	3.0	
Diopters adjustment range, dpt	±5	
Device focusing range (m)	12 - ∞	
Laser Rangefinder		
Eye safety	Class 1, eye-safe	
Wavelength (nm)	905	1550
1064 nm laser protection	Optional	
Specified measuring range (m)*	10 - 2,000	10 - 3,000
Display		
Aiming reticle type	Etched reticle (MIL Dot)	
Display type	Customized matrix OLED	
Display brightness control	Manual (8 levels)	
Mechanics, Electronics & Environmental		
Dimensions (mm)	280x140x105	
Weight with battery (g)	1,590	
Operational temperature (°C)	-35 to +55	
Storage temperature (°C)	-45 to +65	
Waterproof	1m/30min	
Environmental conditions	MIL-STD-810G	
Tripod mounting pad	Yes	
3-axis digital compass	Yes	
Bluetooth communication	Optional	
Internal power supply	2x CR123 Lithium	
Battery life (# of measurements)	5,000	
Nitrogen filled	Yes	
Interface	USB	

*2.3m x 2.3m NATO standard target

  Android™ and Kestrel™ compatible

LASER RANGEFINDERS

MOUNTABLE LASER RANGEFINDER

SEEKER S • SEEKER M

The SEEKER S and SEEKER M represent Newcon Optik's next-generation of 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-distance rangefinding capability in a compact, lightweight package. A built-in display that can be used in tandem with an Android™-based application, 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 fast and accurate target data acquisition while maintaining positive weapons control.

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 (°)	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	
Display		
Integrated display	OLED	
Display color	Red	
Mechanics, Electronics & Environmental		
Dimensions without mount (mm)	115x76.3x52	
Dimensions with mount (mm)	115x76.3x74	
Weight without batteries or mount (g)	325	
Weight with mount (g)	443	
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



Android™ and Kestrel™ compatible





The LRB 12K is built to outperform all other handheld laser rangefinder binoculars. With a high number of performance features fit into a MIL-SPEC form factor, the LRB 12K can handle anything professional operators can throw its way.

Features include a 12,000m (NATO target) measuring range, built-in digital magnetic compass, built-in GPS receiver and a crystal-clear LED display.

Optics	LRB 12K	LRB 12KNIGHT
Magnification (x)	7	7 / 5 (night)
Objective lens diameter (mm)	42	42
Field of view (°)	6	6 / 7
Eye relief (mm)	20	20
Diopter adjustment range	±5	±5
Interpupillary distance (mm)	58 - 72	58 - 72
Rangefinder		
Eye safety	Class 1, eye-safe	
Wavelength (nm)	1550	
Measuring distance range (m)*	10 - 12,000	20 - 12,000
Distance measurement accuracy (m)	±1	
Azimuth measurement accuracy (°)	±1	
Inclination measurement accuracy (°)	±0.5	
Speed detection	Yes	
First/last target logic	Yes	
Gating capability	Yes	
Gating step (m)	≥100	
Scan mode	Yes	
Peripheral compatibility	PLGR, Bal Comp, PC, BT (optional), Android™	
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	

*2.3m x 2.3m NATO standard target

 Android™ compatible

ULTRA LONG-RANGE LASER RANGEFINDER BINOCULARS

LRB 12K • LRB 12KNIGHT

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.

Display	LRB 12K	LRB 12KNIGHT
Meters/yards display		Yes
Computer output, type	RS-232, USB, NMEA	
Last 10 readings recall		Yes
Reticle pattern selection		Yes
Low battery indicator		Yes
Mechanics, Electronics & Environmental		
Dimensions (mm)	210x178x85	
Weight without batteries (g)	1,580	1,900
Tripod mountable		Yes
Power Supply	2CR5 non-magnetic	
Battery life (# of measurements)	5,000	
Operating temperature range (°C)	-40 to +60	-25 to +60
Storage temperature range (°C)	-40 to +60	
Waterproofing	MIL-STD-810G	
IIT		
Generation	-	3
Photocathode material	-	GaAs
IIT resolution, minimum (lp/mm)	-	64
Signal to noise ratio, minimum	-	25
Auto-gating	-	Optional

*2.3m x 2.3m NATO standard target

 Android™ compatible



With tablet running Android™-based application



LRM 3500M



MEDIUM-RANGE LASER RANGEFINDER MONOCULAR

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

Optics	NC-35M	NC-35C	NC-35BT
Magnification (x)		6.5	
Objective lens diameter (mm)		30	
Field of view (°/mil)		7/124	
Eye relief (mm)		20	
Diopter adjustment range		±5	
Rangefinder			
Eye safety		Class 1, eye-safe	
Wavelength (nm)		1550	
Measuring distance range (m)		10 - 5,500	
Specified measuring distance range (m)*		10 - 3,500	
Distance measurement accuracy (m)		±1	
Azimuth measurement accuracy (mils)	17.5	±10	17.5
Inclination measurement accuracy (mils)	8.8	±5	8.8
Speed detection	Yes	--	--
Magnetic declination correction (mils)	1	1	--
Compass & inclinometer units	°/mils	°/mils	°/mils
Power-on time (sec)	< 1	< 1	< 1
FOS (Fall of shot)	--	Yes	--
First/last target logic		Yes	
Target discrimination (m)		50	
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	
Etched reticle step (mils)		1	
User GPS coordinates	Yes	--	Yes
Target GPS coordinates	Yes	--	Yes
GPS coordinates format	Dec Degs Micro	--	Dec Degs Micro
Mechanics, Electronics & Environmental			
Display type		Customized Matrix Red OLED	
Computer output, type	USB, RS232	USB, RS232, Bluetooth	USB, Bluetooth
DAGR communication	Yes	Yes	--
Dimensions with no sleeve (mm)		118x107x54	
Weight without batteries (g)		460	
Power supply		Non-magnetic 2x CR123 lithium batteries	
Battery life (# of measurements)		5,000	
Low battery indicator		Yes	
Tripod mountable		Yes	
3-axis digital compass		Yes	
Compass calibration & validation		Yes	
Operating temperature range (°C)		-35 to +65	
Storage temperature range (°C)		-40 to +85	
Waterproofing		MIL-STD-810G (1m/30min)	

*2.3m x 2.3m NATO standard target

  Android™ and Kestrel™ compatible

LASER RANGEFINDERS

MEDIUM-RANGE LASER RANGEFINDER BINOCULARS

LRB 6K

The LRB provides accurate distance, azimuth, inclination and speed measurements out to maximum distances of 6,000m (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.

Optics	LRB 6K
Magnification (x)	7
Objective lens diameter (mm)	42
Field of view (°)	6
Eye relief (mm)	20
Diopter adjustment range	±5
Interpupillary distance (mm)	58 - 72
Rangefinder	
Eye safety	Class 1, eye-safe
Wavelength (nm)	1550
Measuring distance range (m)*	10 - 6,000
Distance measurement accuracy (m)	±1
Azimuth measurement accuracy (°)	±1 / 17
Inclination measurement accuracy (°)	±0.5 / 8.8
Speed detection	Yes
First/last target logic	Yes
Gating capability	Yes
Gating step (m)	100
Scan mode	Yes
Peripheral compatibility	PLGR, Bal Comp, PC, Android™
Bluetooth communication	Optional
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
Display	
Meters/yards display	Yes
Display type	OLED
Computer output, type	RS-232, USB, NMEA
Last 10 readings recall	Yes
Reticle pattern selection	Yes
Low battery indicator	Yes
Mechanics, Electronics & Environmental	
Dimensions (mm)	210x178x85
Weight without batteries (g)	1,580
Tripod mountable	Yes
Power supply	2CR5 non-magnetic
Battery life (# of measurements)	5,000
Operating temperature range (°C)	-40 to +60
Storage temperature range (°C)	-40 to +60
Waterproofing	MIL-STD-810G

*2.3m x 2.3m NATO standard target



Android™ and Kestrel™ compatible



LRB 3000PRO



MEDIUM-RANGE LASER RANGEFINDER BINOCULAR

Designed with professional operators in mind, the LRB 3000PRO combines compact, clear 7x40 binocular optics with a 3,000m (NATO target) ranging capability.

A built-in digital magnetic compass provides accurate readings of azimuth, inclination, and target speed. 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	LRB 3000PRO
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
Azimuth measurement accuracy (°/mils)	±2 / 35
Inclination measurement accuracy (°/mils)	±1 / 17
Speed detection	Yes
First/last target logic	Yes
Scan mode	Yes
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

LASER RANGEFINDER MONOCULARS

LRM SERIES

Newcon Optik's bestselling line of laser rangefinder monoculars feature a compact, sturdy design 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.

For border patrol, law enforcement and other professionals tasked with perimeter control, the LRM 1800S features a true measurement range of 1,800m (NATO target), and performs accurate speed measurement. 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	
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 - 1,500	10 - 1,800	10 - 2,200
Distance measurement accuracy (m)		±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	
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)		127x125x60	
Weight without batteries (g)		445	
Power supply	9V	9V	9V non-magnetic
Battery life (# of measurements)		5,000	
Operating temperature range (°C)		-25 to +50	
Storage temperature range (°C)		-45 to +65	
Waterproofing	IP63	IP63	IP66

*2.3m x 2.3m NATO standard target



LRM 2200SI NSN# 1240-20-009-0287

LASER RANGEFINDERS



LRF MICRO integration with Talon Universal Weapon Mount

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 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 performance standards and small 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 UART and USB interfaces. Other features include gating capability, fast scan mode, speed measurement, and object selection.

Rangefinder	LRF MICRO CI	LRF MICRO 1550	LRF MICRO 1550 CI
Eye safety		Class 1, eye-safe	
Wavelength (nm)	905	1550	1550
Specified measurement range (m):			
Vehicle size NATO target, 2.3x2.3m, albedo 0.3	2,000	3,000	3,000
Human size NATO target, 1.0x1.0m, albedo 0.1	1,000	1,000	1,000
Conditions: Visibility ≥ 15 km			
Distance measurement accuracy (m)	± 1	± 1	± 1
Azimuth measurement accuracy ($^{\circ}$)	± 1	-	± 1
Inclination measurement accuracy ($^{\circ}$)	± 1	-	± 1
Beam divergence, mrad	3.2x0.8	1.6x0.4	1.6x0.4
Speed detection	Yes	Yes	Yes
Measuring time, distance (seconds)	0.1	0.1 - 1.1	0.1 - 1.1
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 without compass (mm)	88x48x30	88x48x30	88x48x30
Weight (g)	120 (CI)	107	120 (CI)
Interface	UART, USB	UART, USB	UART, USB
Power source	5 - 15V DC	5 - 15V DC	5 - 15V DC
Operating temperature range ($^{\circ}$ C)	-40 to +50	-40 to +50	-40 to +50
Storage temperature range ($^{\circ}$ C)	-40 to +60	-40 to +60	-40 to +60

NIGHT VISION SYSTEMS

AGBW SERIES

The AGBW series consists of advanced Generation 3 IITs with world-leading GaAs photocathode sensitivity and high 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-&-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 high 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 high FOM.





The NVS 14 series of night vision monoculars have been proven by deployments in conflict zones and by peacekeepers around the world. All models utilize advanced Gen 3 image intensifier tubes with minimum, exportable FOM >1600, and have a manual gain control system. The newly-improved NVS 14-3AG and NVS 14-3AGBW models are now 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	NVS 14-3AGBW	NVS 14-3XT
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
Figure of merit (minimum)	1600	1600	1600
Auto-gating	Yes	Yes	No
Black & white phosphor	No	Yes	No
Optics			
Magnification (x)	1	1	1
Field of view (°)	40	40	40
Objective F#	1.2	1.2	1.17
Objective focal length (mm)	25	25	27.5
Focus range (m)	0.25 - ∞	0.25 - ∞	0.25 - ∞
Eye relief (mm)	25	25	25
Diopter adjustment range	-6 to +5	-6 to +5	-6 to +5
Mechanics, Electronics & Environmental			
Dimensions (mm)	114x68x49	114x68x49	118x69x49
Weight without batteries (g)	287	287	300
Built-in IR illuminator	Yes		
Battery type	1x AA or 1xCR123		
Reverse Polarity Protection	Yes		
IR Operation Indicator	Yes		
Automatic Shut-off System	Yes		
Upright Shut-off System	Yes		
Battery life (hours)	40		
Operating temperature range (°C)	-50 to +55		
Storage temperature range (°C)	-50 to +70		
Waterproofing, standard	MIL-STD-810G		
Waterproofing, GCS Upgrade	20m, 30min		

DUAL-TUBE NIGHT VISION GOGGLES

NVS 15 SERIES

The NVS 15 series of night vision goggles has been proven by 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. All 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 device, while the proprietary bridge mount provides for interpupillary 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	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	No
Black & white phosphor	No	Yes	No
Optics			
Magnification (x)	1 (3x option available)		
Field of view (°)	40		
Objective F#	1.2	1.2	1.17
Objective focal length (mm)	25	25	27.5
Focus range (m)	0.25 - ∞		
Eye relief (mm)	25		
Diopter adjustment range	-6 to +5		
Mechanics, Electronics & Environmental			
Dimensions (mm)	114x150x66	114x150x66	118x150x66
Weight without batteries (g)	676	676	725
Interpupillary distance (mm)	52 - 74		
Built-in IR illuminator	Yes		
Battery type	2x AA or 2x CR123		
Battery life (hours)	40		
Startup time (seconds)	<2		
Operating temperature range (°C)	-50 to +55		
Storage temperature range (°C)	-50 to +70		
Humidity	up to 95% non-condensing		
Waterproofing, standard	MIL-STD-810G		
Waterproofing, GCS update	20m, 30min		





The NVS 7 series of night vision goggles has been proven by 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. 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	NVS 7-3XT
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	No
Auto-gating with black & white phosphor	No	Yes	No
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)		137x135x59	
Weight without batteries (g)		454	
Interpupillary distance (mm)		57-73	
Built-in IR illuminator		Yes	
Battery type		2x AA	
Reverse Polarity Protection		Yes	
IR Operation Indicator		Yes	
Low Battery Indicator		Yes	
Automatic Brightness control		Yes	
Automatic shut-off system		Yes	
Battery life (hours)		80	
Operating temperature range (°C)		-50 to +55	
Storage temperature range (°C)		-55 to +60	
Waterproofing		MIL-STD-810G	

NIGHT VISION BINOCULARS

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, or 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. 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 in the lens for added stability.



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 (AGBW)	Optional (AGBW)	Optional (AGBW)
Optics			
Magnification (x)	4	5	8
Field of view (°)	10	8	5
Objective F#	2.0	2.3	2.0
Objective focal length (mm)	115	130	240
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)	165x127x65	190x127x80	220x127x135
Weight without batteries (g)	640	791	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

Newcon Optik's NVS accessories multiply the usefulness of NVS devices by protecting them from the elements, by allowing them to be head-, helmet-, or weapon-mounted, and by permitting the combination of multiple devices.



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 QR Mount

Quick Release flip-to-side MIL-STD-1913 Weapon Mount.

NIGHT VISION ACCESSORIES

Newcon Optik offers accessories to for device transport, to add magnification, or to attach to day-optics for a night vision conversion.



Hard Case (various sizes)

MIL-SPEC case to protect devices 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 goggles



NVS U Coupler

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 goggles



NVS Lens 8x

Catadioptric, tripod mountable 8x magnification add-on lens for goggles



The NVS 27M 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 and is compatible 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. 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 27M
Generation	3
Photocathode material	GaAs
IIT resolution, minimum (lp/mm)	64
Figure of merit, minimum	1600
Signal to noise ratio, minimum	25
Mean time to failure (hours)	10,000
Photocathode sensitivity, minimum, (µA/lm)	1800
Auto-gating	Yes
Auto-gating with black & white phosphor	Optional
Automatic brightness control	Yes
Optics	
Magnification (x)	1
Field of view (°)	13
Objective F#	1.5
Objective focal length (mm)	78
Focus range (m)	10 to ∞
Magnification compatibility, recommended (x)	1 - 20
Mechanics, Electronics & Environmental	
Dimensions (mm)	220x87x90
Weight without batteries (g)	970 (with QR mount)
Mount system	QR Mount
Height from the rail to the optical axis (mm)	42
Height from the rail to the optical axis (inches)	1.65
IR illuminator	Optional
Battery type	1x AA or 1x CR123
Battery life (hours)	50
Low battery indicator	Yes
Operating temperature range (°C)	-50 to +55
Storage temperature range (°C)	-50 to +70
Waterproofing	MIL-STD 810G
MIL-STD-810G compliant	Yes
Boresight retention	Permanent
Boresight adjustment	Not required

NIGHT VISION RIFLESCOPE

DN 493_6x

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 among riflescopes in its class.

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

IIT	DN 493_6xAG/AGBW
Generation	3
Photocathode material	GaAs
IIT resolution, minimum (lp/mm)	64
Signal to noise ratio, minimum	25
Auto-gating	Yes
Auto-gating with black & white phosphor	AGBW
Optics	
Magnification (x)	6
Field of view (°)	6.3
Objective F#	2.0
Objective focal length (mm)	165
Focus range (m)	20 to ∞
Eye relief (mm)	50
Diopter adjustment range	-3 to +4
Mechanics, Electronics & Environmental	
Dimensions (mm)	300x98x90
Weight with mount (g)	1,400
Standard mount system	MIL-STD-1913
Built-in IR illuminator	Yes (removable)
Battery type	2x AA
Battery life without IR (hours)	60
Low battery indicator	Yes
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



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 25mm 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.



NVS 9-3AG



NVS 6-3XT

IIT	NVS 6-3XT	NVS 9-3AG
Generation		3
Photocathode material		GaAs
IIT resolution, minimum (lp/mm)		64
Signal to noise ratio, minimum		25
Auto-gating	No	Yes
Optics		
Magnification (x)		1
Field of view (°)		40
Objective F#		1.23
Objective focal length (mm)		27.5
Focus range (m)		0.25 to ∞
Eye relief (mm)		25
Diopter adjustment range		-5 to +2
Filter (Available)		Leaky green or Minus blue
Mechanics, Electronics & Environmental		
Dimensions (mm)		128x120x55
Weight without batteries (g)		593
Battery type		2x AA
Battery life (hours)		60
Operating temperature range (°C)		-32 to +52
Storage temperature range (°C)		-40 to +60

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+
Photocathode material		S-25
IIT resolution, minimum (lp/mm)	53	56
Signal to noise ratio, minimum		18
Optics		
Magnification (x)		1
Field of view (°)		40
Objective F#	1.17	1.2
Objective focal length (mm)	27.5	27.5
Focus range (m)		0.25 - ∞
Eye relief (mm)		25
Diopter adjustment range		-6 to +5
Mechanics, Electronics & Environmental		
Dimensions (mm)	118x69x48	150x120x55
Weight without batteries (g)	300	480
Interpupillary distance (mm)	-	50 - 75
Built-in IR illuminator		Yes
Reverse Polarity Protection		Yes
IR Operation Indicator		Yes
Low Battery indicator		Yes
Automatic Brightness Control		Yes
Automatic shut-off system		Yes
Battery type	1x AA or 1xCR123	2x AA
Battery life (hours)	40	80
Operating temperature range (°C)		-50 to +55
Storage temperature range (°C)		-50 to +70
Waterproofing		IP67



NV 66-G2

NV 207-G2

THERMAL IMAGING SYSTEMS

Thermal imagers give users the ability to detect incredibly small thermal gradients regardless of external light conditions. Using a high-performance, uncooled microbolometer, thermal imagers can be used in a variety of situations, including detecting a foe behind concealment, locating a victim under an avalanche, pointing out recently operated vehicles or even to detect a bad contact in a high-voltage powerline.

Thermal imagers are fast becoming an essential piece of equipment for military and professional law enforcement units as they offer true 24/7 detection capability, as well as an alternative to traditional image intensified night vision systems. Newcon Optik's line of lightweight, high-performance thermal devices are purpose built to offer MIL-SPEC ruggedness, extreme distance performance, enhanced operational duration (via commercially available batteries), and to be virtually maintenance-free.



THERMAL MONOCULAR

TVS 11M • TVS 11M-640

TVS 11M is the next generation of Newcon Optik's field-proven thermal imaging product line. Designed as a multipurpose thermal imager, the extremely lightweight and compact TVS 11M can be deployed handheld, helmet or weapon-mounted configuration. Using a state-of-the-art uncooled thermal sensor, the TVS 11M delivers incredibly clear images while achieving continuous operation of over 4 hours.

The TVS 11M is fully MIL-SPEC and features a built-in 2x and 4x digital zoom which can be paired with an optional 2x A focal-magnification lens for enhanced distance performance. With video-output as a standard feature, internal video/photo storage (TVS 11M-640) and a built-in IR laser pointer, the TVS 11M is the ideal thermal monocular for military, police, and search & rescue applications.

Sensor	TVS 11M	TVS 11M-640
Resolution (pixels)	384x288	640x512
Operating wavelength (μ)	8 - 14	7.5 - 13.5
Sensitivity (mK @F1.0)	<70	<40
Video output	PAL	
DRI range (m)		
Human	576/142/71	1,167/292/146
Vehicle	1,530/385/190	3,157/789/395
Multiple color options	Yes	
Optics		
Objective focal length (mm)	17	35
Field of view (°)	22x16.5	17.7 x14.2
Eye relief (mm)	25	26
Dioptric correction	±5	
Zoom	2x, 4x	Continuous zoom from 1-4x
Mechanics, Electronics & Environmental		
Dimensions (mm)	145x72x50	150x72x50
Weight without batteries (g)	375	410
Battery type	1800mAh Li-on, 2xCR123 Lithium batteries or 2x rechargeable CR123	
Battery life (hours)	4	4 (3 with rechargeable)
Operating Temperature range (°C)	-35 to +55	-35 to +60
Operating Temperature range (°C)	-45 to +70	-40 to +65
Waterproofing	MIL-STD-810G	
Optional weapon-mounting systems	S Mount, QR Mount	
Weapon compatibility	Rifles, Machine guns & Anti-armour systems (RPG, Carl-G)	
Aiming reticle	Yes	Yes
Internal video/photo recording	No	Yes



Shown with 2x afocal lens





The SENTINEL and SENTINEL LRF are advanced thermal imaging binoculars with a wide variety of tactical, law enforcement, border security and special forces applications. The SENTINEL and SENTINEL LRF utilize a high-resolution uncooled thermal sensor to perceive differences in the thermal signature of objects within the field of view, and a large-diameter Germanium lens to extend their observation range.

The SENTINEL and SENTINEL LRF can detect objects at remote distances 24 hours a day, through smoke, fog or camouflage, and do not produce any audible sounds while in operation.

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

Sensor	SENTINEL	SENTINEL LRF
Resolution (pixels)	384x288	640x480
Pixel size (PI)	17	
Operating wavelength (μ)	7 - 14	
Sensitivity (mK @F1.0)	<70	<55
Video output	PAL	
DRI range (m)*	2,500/625/313	
Optics		
Objective focal length (mm)	75	
Field of view (°)	5.0x3.7	8.3x6.2
Eye relief (mm)	25	
Dioptric correction	-6 to +2	
Zoom	2x, 4x	
Internal recording module	Optional	
Mechanics, Electronics & Environmental		
Dimensions (mm)	208x146x90	210x146x89
Weight without batteries (g)	1,030	1,307
Battery type	6x AA	
Battery life (hours)	6	
Operating Temperature (°C)	-40 to +50	
Waterproofing	MIL-STD-810G	
Laser Rangefinder		
Laser Wavelength (nm)	-	1,550
Measurement distance to 2.3x2.3m NATO (m)	-	3,000
Distance measuring accuracy (m)	-	±1
Device measurement capability (m)	-	5,000
Azimuth measuring range (°)	-	360
Elevation measuring range (°)	-	±60

*2.3m x 2.3m NATO standard target

THERMAL CLIP-ON SIGHT

TVC 60

The TVC 60 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 TVC 60 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 TVC 60 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 TVC 60 a valuable addition to any sniper's kit.

Sensor	TVC 60
Resolution (pixels)	640x480
Operating wavelength (μ)	8 - 14
Display	AMOLED 800x600
Sensitivity (mK @F1.0)	<55
Video Output	PAL
DRI Range(m)*	1330/330/170
Optics	
Objective focal length (mm)	40
Objective F number	1.0
Field of view ($^{\circ}$)	15.5x11.7
Focus range	10m - ∞
Eye Relief	50mm
Mechanics, Electronics & Environmental	
Dimensions (mm)	155x95x88
Weight without batteries (g)	750
Battery type	4 x AA
Battery life (hours)	4
Operating Temperature ($^{\circ}$ C)	-40 to +55
Waterproofing	MIL-STD-810G
Weapon mounting system	MIL-STD-1913
Weapon compatibility	Assault rifles, Sniper rifles

*Detection/Recognition/Identification to human-sized target





The TVS 13M thermal rifle scope 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.

Sensor	TVS 13M	TVS 13M (640)
Resolution (pixels)	384x288	640x480
Pixel size (μ)		17
Operating wavelength (μ)		8 - 14
Full Frame Rates, PAL (Hz)		50
Display AMOLED		800x600
Sensitivity (mK @F1.0)	<70	<55
Video Output		PAL
DRI range (m)*		1,800/450/225
Optics		
Objective focal length (mm)		54
Field of view (°)	7.0x5.2	11.5x8.6
Eye relief (mm)		30
Dioptric correction		-6 to +2
Zoom		2x, 4x
Mechanics, Electronics & Environmental		
Dimensions (mm)		270x75x102**
Weight without batteries (g)		1194 (with mount)**
Battery type		6x AA or battery cassette
Battery life (hours)		8
Operating Temperature (°C)		-40 to +55
Waterproofing		MIL-STD-810G
Shock resistance (G)		300
Ballistics		
# of preprogrammed reticles		8
Programmable ballistic profiles		4
Automatic reticle color inversion		Yes
Proximity sensor		Yes

*Detection/Recognition/Identification to human-sized target

**Due to frequent updates in design and manufacturing, some specifications are subject to change.

THERMAL IMAGING RIFLESCOPES

TVS 13M (75) • TVS 13M(640-75)

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 (75)	TVS 13M (640-75)
Resolution (pixels)	384x288	640x480
Pixel size (µ)		17
Operating wavelength (µ)		8 - 14
Full Frame Rates, PAL (Hz)		50
Display AMOLED		800x600
Sensitivity (mK @F1.0)	<70	<55
Video Output		PAL
DRI range (m)*		2,500/625/313
Optics		
Objective focal length (mm)		75
Field of view (°)	5.0x3.7	8.3x6.2
Eye relief (mm)		30
Dioptric correction		-6 to +2
Zoom		2x, 4x
Mechanics, Electronics & Environmental		
Dimensions (mm)		285x90x112**
Weight without batteries (g)		1,320 (with mount)**
Battery type		6x AA or battery cassette
Battery life (hours)		8
Operating Temperature (°C)		-40 to +50
Waterproofing		MIL-STD-810G
Shock resistance (G)		500
Ballistics		
# of preprogrammed reticles		8
Programmable ballistic profiles		4
Automatic reticle color inversion		Yes
Proximity sensor		Yes

*Detection/Recognition/Identification to human-sized target

**Due to frequent updates in design and manufacturing, some specifications are subject to change.



TVSD
Digital recording module



TACTICAL OPTICS



ILLUMINATED TACTICAL VARIABLE-ZOOM RIFLESCOPE

NC 5-30x56

The NC 5-30x56 is a daytime riflescope which features an illuminated reticle, variable magnification and is designed for use on a variety of weapon platforms. The riflescope features a Mil-Dot reticle positioned in the first focal plane of the eyepiece, ensuring a consistent reticle size, regardless of the magnification being utilized.

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. The riflescope incorporates windage adjustment (the multi-revolving scheme) and elevation adjustment (single-revolving scheme). The unit has tactile/audible step adjustments.

Optics	NC 5-30x56
Minimum magnification (x)	5
Maximum magnification (x)	30
Objective lens diameter (mm)	56
Exit pupil diameter @ 5x (mm)	9
Exit pupil diameter @ 30x (mm)	1.9
Field of view @100 m @ 5x (m)	4.8
Field of view @100 m @ 30x (m)	0.8
Eye relief (mm)	95
Diopter adjustment range	±2
Ballistics	
Reticle pattern	Mil-Dot
Lit reticle	Yes
Windage adjustment step (MOA)	0.33
Windage adjustment range (MOA)	180
Elevation adjustment step (MOA)	0.33
Elevation adjustment range (MOA)	180
Mechanics, Electronics & Environmental	
Dimensions without mount (mm)	422x65x65
Weight (g)	795 (w/o mount)
Shock resistance (G)	500
Battery type	CR 2032 (3 V)
Battery life, maximum (hours)	100
Operating temperature range (°C)	-35 to +55
Storage temperature range (°C)	-40 to +60
Humidity (%)	98
Waterproofing	MIL-STD-810G





The LAS 1000 detects snipers and other forward observers before they fire a shot making it an ideal system 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	LAS 1000
Objective lens focal distance (mm)	50 / F2.0
CCD resolution (pixels)	CCD, 752x582
Minimal illumination (lux)	0.005
Video output refresh rate (Hz)	50
Field of view (°)	5.2x4
Magnification	7x
Display resolution (pixels)	800 x 600 OLED SVGA
Diopter adjustment of the eyepiece	± 4
Detection parameters	
Maximum detection range, 4x30 weapon sight (m)	1,000
Minimum detection distance of the optical objects (m)	70
Distance measuring accuracy (m)	10
Angular size of the detection zone (° or mils)	1.8° / 32 mils (V) x 0.03° / 0.5 mils (H)
Maximum horizontal scanning speed (°/sec)	30
Compass	
Measured azimuth range (°)	360
Accuracy	±2.0° RMS at level
Inclinometer	
Measured elevation range (°)	±90
Accuracy	±1.0° RMS (within ±80°)

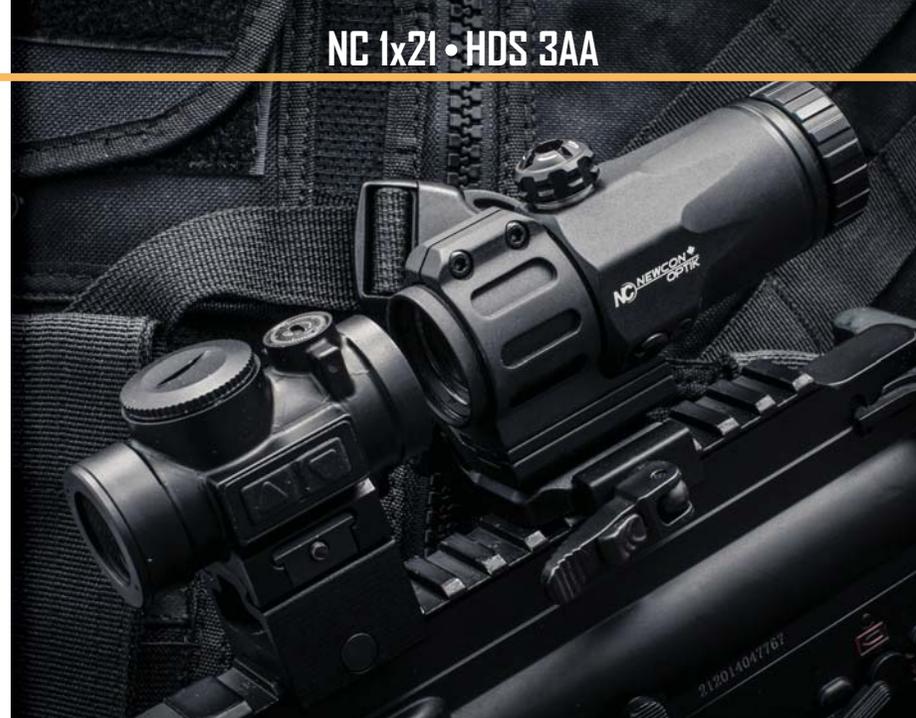
RED DOT SIGHTS

NC 1x21 • HDS 3AA

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 extremely compact NC 1x21 is ideal for use in confined spaces or as a backup optic. It has a variety of brightness settings and is fully compatible with magnifiers and night vision devices.

The tried-and-tested HDS 3AA is a perfect standard issue red dot sight. Its multiple brightness settings and precise step adjustments make it well-suited for use with any assault rifle. 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
Parallax free		Yes
Eye relief (mm)		Unlimited
Diopter adjustment range	-	±3 (with add-on)
Ballistic Specifications		
Reticle pattern		Red Dot
Red dot size (MoA)	2	4
Lit reticle		Yes
Lit reticle colour		Red
Adjustable reticle brightness	10 Settings	11 Settings
Windage adjustment step (MoA)	0.68	0.5
Elevation adjustment step (MoA)	0.68	0.5
Night vision compatible		Yes
Mechanics, Electronics & Environmental		
Housing material type	Extruded High Strength Aluminum	
Co-witness with iron sights	Yes	-
Dimensions without riser (mm)	65x38x44	128x55x70
Weight without riser (g)	97	332
Dimensions with riser (mm)	65x38x69	
Weight with riser (g)	147	
Shock resistance (G)	500	500
Battery type	1x CR2032	1x AA
Battery life, minimum (hours)	160	800
Operating temperature range (°C)	-40 to +50	-40 to +60
Storage temperature range (°C)	-40 to +50	-55 to +75
Humidity (%)	95	
Waterproofing	Standard 1m / 30min Optional 10m / 60min	10m / 60min
Mounting	MIL-STD-1913	





With crystal-clear lenses, the NC 4x32 and NC 6x50 highly sought-after weapon-mounted riflescopes. 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 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 assault rifles. Compatibility with Newcon's optional Back-Up Red Dot sight (NC BURD) or NC 1x21 enable 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
Exit Pupil Diameter (mm)	8	-
Field of view (°)	4.5	3
Diopter adjustment range	±3	±3
Anti-reflective lenses	Yes	Yes
Ballistic Specifications		
Reticle pattern	Rangefinding reticle	
Lit reticle	Yes	
Lit reticle colour	Yes	
Adjustable reticle brightness	Yes	
Windage adjustment step (MoA)	0.33	0.25
Elevation adjustment step (MoA)	0.33	0.25
Mechanics, Electronics & Environmental		
Dimensions (mm)	139x57x79	168x75x81
Weight (g)	467	583
Shock resistance (G)	500	
Battery type	1x CR2032	
Battery life, minimum (hours)	160	
Operating temperature range (°C)	-40 to +50	
Storage temperature range (°C)	-40 to +50	
Humidity (%)	95	
Waterproofing	Standard 1m/ 30min Optional 10m/ 2h	
Night vision / thermal compatible	Yes	
Mount type	MIL-STD-1913	

SPOTTING SCOPES

SPOTTER ED • SPOTTER M

On the range or in the field, Newcon Optik spotter scopes will bring your targets into clear, consistently sharp and high-contrast focus. Both our Spotter ED and Spotter M are fully MIL-SPEC and feature etched reticles which allow for highly accurate adjustments.

The Spotter ED features an 85mm objective lens with Extra-low Dispersion glass, ensuring high clarity along the 20-60x magnification range. Designed with a low-profile straight eyepiece, the Spotter ED comes standard with eyepiece/objective covers, an all-weather case and table-top tripod. The Spotter ED can be paired with night vision devices via Newcon Optik's proprietary NVS U Coupler set, allowing users 24 hour observation and shot correction capability.

Newcon Optik's Spotter M is a handheld pocket scope with an 8x magnification and unsurpassed clarity in an extremely small size. In situations where a pair of binoculars may be too bulky, the Spotter M and its internal M22 reticle are the perfect solution for medium-range observation.

Optics	SPOTTER ED	SPOTTER M
Magnification (x)	20 - 60	8
Objective lens diameter (mm)	85	42
Focus range (m)	7 - ∞	3 - ∞
Exit pupil (mm)	4.25 - 1.4	5.25
Eye relief, (mm)	20 - 18	17.5
Field of view @ 1,000yd min mag/ max mag (feet)	105 / 53	1008.0
Field of view @ 1,000m (m)	35.0 / 17.7	336
Diopter adjustment range	±5	±3
Twilight factor	41.2 / 71.4 (min mag / max mag)	18.3
Relative brightness	18 / 2 (min mag / max mag)	27.6
Reticle type	Mil-Dot	M22
Mechanics & Environmental		
Weight (g)	1,300	336
Dimensions (mm)	432x105x174	142x60x57
Eyepiece type	Straight	
Operating temperature range (°C)	-30 to +60	-30 to +60
Storage temperature range (°C)	-40 to +65	-30 to +60
Nitrogen purged	Yes	
Waterproofing	IP67	





Newcon Optik's LAM series of weapon-mounted laser aimers and illuminators are used by professional 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 triple-channel device featuring a green visible laser aimer, IR laser aimer, and an IR illuminator. The LAM 4G is a next-generation multifunctional Laser Aiming Module featuring a visible green laser aimer, IR laser aimer, variable-focus IR (InfraRed) laser illuminator and tactical 300-lumen white LED flashlight condensed in a lightweight, compact housing.

The LAM 3G and LAM 4G are designed for extreme ruggedness and longevity, featuring unsurpassed operating time and temperature ranges. Both units have solid audible/tactile step adjustment mechanisms that are easy to use and hold position after thousands of shots. Built for modularity, either unit can be activated via the integral push-button or by a remote cable switch. The LAM 3G and LAM 4G feature a low-power "training" setting which allows the devices to be used safely among friendly forces.

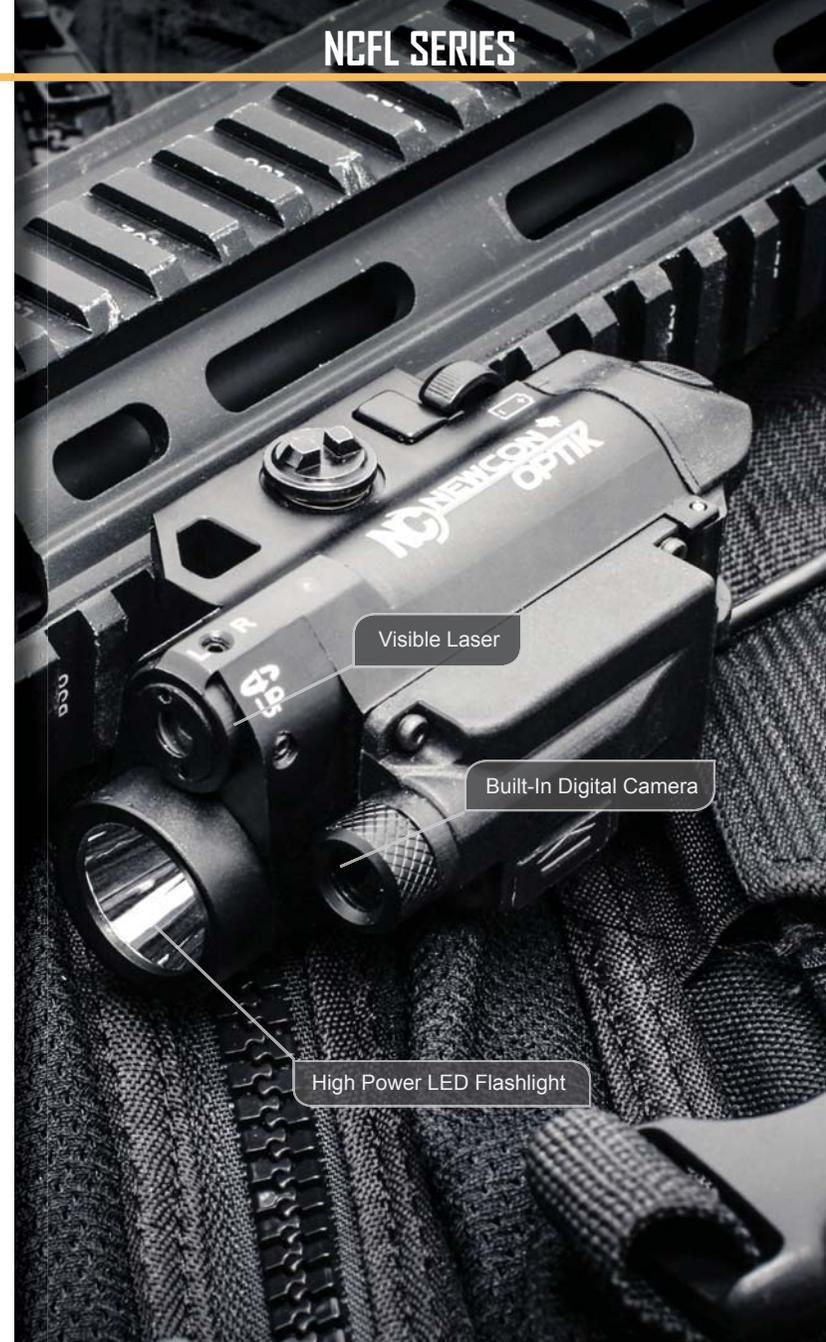
Laser Aimer	LAM 3G	LAM 4G
Eye safety	IIIb	
Distance, low/high (m)	150/500	500
Beam divergence, FWHM (mrad)	0.5	1.2
Spot size @ 100m (mm)	50	60
Wavelength (nm)	532 ±10	530 ±20
Laser colour	Green	
Output power, low/high (mW)	<4/≥8	>5
Infrared Laser Aimer		
Eye safety	IIIb	
Distance, low/high (m)	400/2,000	
Beam divergence, FWHM (mrad)	0.5	1.2
Wavelength (nm)	830 ±15	830 ±20
Output power, low/high (mW)	<2/≥20	
Flashlight		
Bulb	-	CREE, V6HD
Light output (lumens)	-	300
Infrared Laser Illuminator		
Eye safety	IIIb	
Distance, low/high (m)	200/2,000	
Beam divergence, FWHM (mrad)	1 - 105	1.3 - 60
Wavelength (nm)	830 ±15	830 ±20
Output power, low/high (mW)	<2/≥25	<2/<20
Ballistics		
Windage adjustment step (mrad)	0.5	
Elevation adjustment step (mrad)	0.5	
Retention after 1,000 shots (mrad)	1	
Mechanics, Electronics & Environmental		
Dimensions (mm)	100x80x40	116x90x34
Weight without batteries (g)	278	285
Shock resistance (G)	300	
Quick release	Yes	
Battery type	CR 123	

TACTICAL LED FLASHLIGHTS

NCFL SERIES

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 9	NCFL 9 RI	NCFL 9 GI	NCFL 10
Modes	OFF, Flashlight, Infrared Aimer	OFF, Flashlight, Red Laser Aimer, Infrared Aimer, Flashlight+ Red Laser	OFF, Flashlight, Green Laser Aimer, Infrared Aimer, Flashlight +Green Laser	Camera + Aimer, Camera + LED, Camera + Aimer + LED
Material	6061 Aviation Grade Aluminum and high-strength Zytel polymer			
Color	Hard anodizing, matte black, black			
Flashlight				
Bulb	C4 LED	C4 LED	C4 LED	CREE Q5
Light output (lumens)	>180	>225	>225	120
Flashlight modes	-	-	-	Continuous, strobe
Visible Laser				
Visible laser distance (m)	-	75	75	50
IR distance (m)	250	250	250	-
Visible laser / IR laser	830±10nm, <15mW	650±10nm at ≤5mW / 835±10nm at <10mW	530±10nm at ≤5mW / 835±10nm at <10mW	-
Laser beam size (mm @ 10m)	<Ø10	<Ø10	<Ø10	8 mm
Camera				
Image resolution	-	-	-	1920 x 1080
Picture element (megapixels)	-	-	-	2
Frames per second during recording	-	-	-	30
Field of view (°)	-	-	-	68
Card format	-	-	-	Micro SD
Storage capacity (MB/min)	-	-	-	110
Hours per 16G memory card	-	-	-	2.5
Maximum capacity (GB)	-	-	-	up to 32
Mechanics, Electronics & Environmental				
Mounting	MIL-STD-1913 Picatinny Mount			
Battery	2 x CR 123 Lithium			
Hours of operation (hours)	40 (IR mode) 1.7 (Flashlight)	≥5	≥5	1
Operating temperature range (°C)	-20 to +50	-10 to +50	-10 to +50	-20 to +50
Storage temperature range (°C)	-20 to +50	-20 to +60	-20 to +60	-40 to +60
Dimensions (mm)	87x41x50	80x55x51	80x55x51	90x40x49
Weight w/o batteries (g)	106	115	115	130
Waterproof	IP67 / 1m / 30min			IPX4



NCFL 10 shown in photo



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 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 extremely long maximum range provides significant optical advantage to professional 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 laser 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	
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)	2 / 4
Operating temperature range (°C)	-20 to +50 (IR) -10 to +50 (Green)
Storage temperature range (°C)	-40 to +60
Waterproofing	IP67

TACTICAL DAY BINOCULARS

AN SERIES

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 armoring makes these binoculars comfortable to operate even in cold weather. They are waterproof and shockproof, feature an M-22 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 - ∞	5 - ∞	5 - ∞	6 - ∞	18 - ∞
Exit pupil (mm)	4	7	7	5	4
Eye relief (mm)	17	23	23	19	16
Field of view - Angular (°)	8	7.2	8	7	3.3
Apparent field of view (°)	8.0	7.5	8.0	7.0	66
Field of view @ 1,000yd (feet)	419	396	419	367	173
Field of view @ 1,000m (metres)	139.7	132	139.7	122.3	57.7
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
Resolution (Center) (inches)	-	-	-	-	≤3
Lens & Prism coating	FMC				
Prism Type	BAK-4				
Prism Glass Material	BAK-4				
Reticle type	M22				
Mechanics & Environmental					
Interpupillary distance (mm)	56-74				
Weight (g)	595	1,046	1,363	1,309	2,498
Dimensions	110x160x54	152x190x83	195x195x75	180x190x73	298x230x95
Illuminated compass	No	Yes	No	No	No
Tripod mountable	Yes	Yes	Yes	Yes	Yes
Battery type	n/a	LR44	n/a	n/a	n/a
Operating temperature range (°C)	-30 to +60	-30 to +60	-40 to +70	-40 to +70	-40 to +80
Storage temperature range (°C)	-45 to +75	-45 to +75	-45 to +75	-45 to +75	-45 to +85
Nitrogen purged	Yes				
Waterproofing	MIL-STD-810G				6m / 30 min



AN 10x50M22 shown in photo



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

The BIG EYE 28x100ED has massive 100mm 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 BIG EYE 28x100ED is nitrogen-filled to prevent fogging and 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)	30 - ∞
Exit pupil (mm)	3.6
Eye relief (mm)	16
Apparent field of view (°)	70
Real field of view (°)	2.5
Field of view @ 1000m (m)	43.7
Interpupillary distance (mm)	53-76
Relative brightness	13
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	MILSTD-810G



Shown with optional weatherproof case

TACTICAL ACCESSORIES

Newcon Optik's accessories multiply the usefulness of tactical devices by protecting them from glare, and/or by allowing them to be tripod- or weapon-mounted. Newcon Optik also offers optional magnifying lenses for use with the HDS 3AA and NC 1x21.



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

Backup red dot sight for use as a standalone aimer or backup 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 sniperscope mounts



The SIB 16x40WP gyrostabilized binocular incorporates 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 gyrostabilizing system, the SIB 16X40WP binocular is the ultimate instrument for long-range observation, tracking and surveillance.

Optics	SIB 16x40WP
Magnification (x)	16
Objective lens diameter (mm)	40
Focus range (m)	30 - ∞
Exit pupil (mm)	2.5
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
Angular velocity of panning (°/sec)	0 - 6

VISION IS OUR MISSION

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