

Thank you for choosing ELECTROOPTIC

Established in 1996, the Electrooptic Ltd is specializing at design, manufacture and marketing of electro-optical devices – night vision devices, low level TV systems as well as infrared viewers.

Today we manufacture over 30 various products of two main categories.

The first category - infrared viewers - designed for scientific and technical applications. The main consumers of these products are universities; scientific research centres, as well as companies dealing with optical and laser engineering and technology.

The second category of our products – night vision devices – includes night vision rifle scopes, night vision goggles, round-the-clock digital observation devices, long range observation systems, thermal viewers and infrared illuminators. The main consumers are law enforcement, customs, security, defence institutions, emergency services, pet/predator control agencies as well as private hunters.

Our competitive advantages lie in introduction of latest achievements in optical and digital technologies, “know-how”, as well as optimal price/quality balance.

NIGHT VISION DEVICES

SM-3

NIGHT VISION MONOCULAR

Gen. 2+

The SM-3 NV monocular Gen. 2+ is designed to be used for observation and recognition of objects during night time, as well as night hunting. The powerful in-built LED illuminator has three positions for output power adjustment – from 20mW to 100mW. Light and compact, the monocular can be installed on a facemask, helmet or can be used as a long range NV device with interchangeable lens with 3.5X, 5X or 7X magnification. Degree of protection according to the IEC 60529 standard: IPx5.



SPECIFICATIONS

| Magnification | 1X | 3.5X | 5X |
|------------------------------|--------------|-----------|------------|
| Lens | F1.4/26mm | F1.6/80mm | F1.5/110mm |
| FOV | 40° | 13° | 9° |
| Power supply | 3V, 1xCR123A | | |
| Battery life, h | 80 | | |
| Weight, kg | 0.3 | 0.6 | 0.8 |
| Length, mm | 112 | 183 | 216 |
| Operating temperatures range | -40...+45 °C | | |

NIGHT VISION DEVICES

SM-3G2

NIGHT VISION BINOCULAR-GOGGLES

Gen 2+

Application:

- Night observation, driving
- Law enforcement technical support
- Security / SAR

Features:

- Special high aperture optics
- Adjustable interpupillary distance
- Adjustable In-built 100mW IR illuminator
- Compact size, light weight.
- IEC 60529 degree of protection: IPx5

SPECIFICATIONS

| | | |
|------------------------------|-------------------------|---------------|
| Magnification | 1X | 3.5X |
| FOV | 40° | 12° |
| IR illuminator | LED, 805nm, 100 mW, 20° | |
| Power supply | 3V, 1xCR123A | |
| Battery life (W/O IR), h | 80 | |
| Weight | 0.45 kg | 1.0 kg |
| Size | 120x74x112 mm | 183x74x112 mm |
| Operating temperatures range | -40...+45 °C | |



NIGHT VISION RIFLESCOPES

SM-3S2

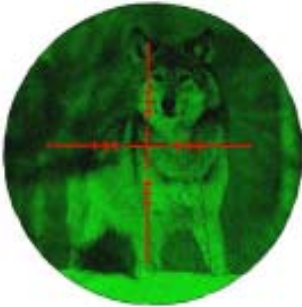
NIGHT VISION RIFLESCOPE

Gen. 2+

Supreme reliability and popularity ensured the long life of this NV scope model.

Features:

- Impact immunity even for large caliber with up to 10 000 J muzzle energy.
- Supreme configuration reliability.
- High aperture optics.
- Red Mil-Dot mark with adjustable brightness.
- Possibility of installing of IR illuminators of various power.
- Adaptable to various kinds of weapons
- Splash-proof configuration IPX4
- Light weight.



SPECIFICATIONS

| | |
|------------------------------|--------------------------|
| Image tube generation | 2+ |
| Magnification | 4X |
| Max. range (at 0.001Lx) | 300 m |
| FOV | 9° |
| Diopter adjustment | +/-3 |
| Calibration accuracy | 2.5 cm at 100 m distance |
| Power supply | 3B, 2xAA |
| Operating temperatures range | -30...+45 °C |
| Dimensions | 270x100 mm |
| Weight | 0.9 kg |

NIGHT VISION RIFLESCOPES

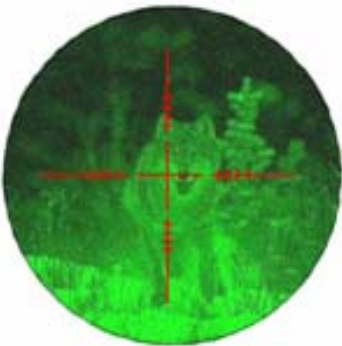
SM-3S2

NIGHT VISION RIFLESCOPE

Gen. 2+

Features:

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- High aperture optics.
- Red Mil-Dot mark with adjustable brightness.
- Possibility of installing of IR illuminators of various power.
- Adaptable to various kinds of weapons
- Splash-proof configuration IPX4
- Light weight.



SPECIFICATIONS

| | |
|------------------------------|--------------------------|
| Image tube generation | 2+ |
| Magnification | 6X |
| Max. range (at 0.001Lx) | 500 m |
| FOV | 6° |
| Diopter adjustment | +/-3 |
| Calibration accuracy | 1.8 cm at 100 m distance |
| Power supply | 3V, 2xAA |
| Operating temperatures range | -30...+45°C |
| Dimensions | 290x100 mm |
| Weight | 1.2 kg |

NIGHT VISION RIFLESCOPES

SM-3S2 D/N 4X DAY/NIGHT RIFLESCOPE

Gen. 2+

Upgraded night vision scope is intended for round-the-clock operation and has all the advantages of the best day and night scopes. Single optical axis for day and night channels provides high shooting accuracy at any time. All the desires of our consumers are concentrated in our Day/Night scope, only top quality image tubes are used here. Every scope undergoes impact tests.

The scope features highest reliability, compact size and versatility.



SPECIFICATIONS

| | |
|------------------------------|--------------------------|
| Image tube generation | 2+ |
| Magnification | 4X |
| Max. range, day night | 300 m 500 m |
| FOV | 9° |
| Diopter adjustment | +/-3 |
| Calibration accuracy | 2.5 cm at 100 m distance |
| Power supply | 3V, CR123A |
| Operating temperatures range | -30...+45 °C |
| Dimensions | 270x100 mm |
| Weight | 1.0 kg |

NIGHT VISION RIFLESCOPES

SM-3S2 D/N 6X DAY/NIGHT RIFLESCOPE

Gen. 2+

Universal riflescope for round-the-clock operation comprises an array of unique design decisions and know-how. It has all the advantages of best night and day scopes. Splash-proof configuration: IPX4.

SPECIFICATIONS

| | |
|------------------------------|--------------------------|
| Image tube generation | 2+ |
| Magnification | 6X |
| Max. range, day night | 500 m 700 m |
| FOV | 6° |
| Diopter adjustment | +/-3 |
| Calibration accuracy | 1.8 cm at 100 m distance |
| Power supply | 3V, CR123A |
| Operating temperatures range | -30...+45 °C |
| Dimensions | 290x100 mm |
| Weight | 1.35 kg |



NIGHT VISION RIFLESCOPES

SM-3S 6X

NIGHT VISION RIFLESCOPE

Gen. 2+

A night scope of new design, meeting the requirements of the most demanding customers. The model features the upgraded calibration mechanism, internal focusing control, convenient flip-up cover, light weight, reliable mount, compactness and extreme reliability.

Flip-up cover



Battery compartment
One AA-type 1.5V battery



Switch with smooth
mark brightness
adjustment

Internal lens focusing

SPECIFICATIONS

| | |
|-------------------------------------|---------------------------------|
| Image tube generation | 2+ |
| Magnification | 6X |
| FOV | 6° |
| Diopter adjustment | +/-3 |
| Calibration accuracy | 1.2 cm at 100 m distance |
| Battery | 1.5V 1xAA |
| Operating temperatures range | -30...+45°C |
| Dimensions | 290x100 mm |
| Weight | 1.3 kg |

NIGHT VISION RIFLESCOPES

SM-3S 3.5X

NIGHT VISION RIFLESCOPE

Gen. 2+

One of the most light and compact Gen.2+ scopes on the night vision market, designed to be used with various weapons systems, on twilight or night conditions. The scope features splash-proof design, shock proof for large calibers, smooth mark brightness adjustment and high aperture optics.



SPECIFICATIONS

| | |
|------------------------------|--------------------------|
| Image tube generation | 2+ |
| Magnification | 3.5X |
| Max. range (at 0.001 Lx) | 300 m |
| FOV | 9° |
| Diopter adjustment | +/-3 |
| Calibration accuracy | 2.5 cm at 100 m distance |
| Battery | 3V, 2xAA |
| Operating temperatures range | -30...+45°C |
| Dimensions | 196x93X60 mm |
| Weight | 0.9 kg |

DIGITAL NIGHT VISION DEVICES

SM-3DB DIGITAL BINOCULAR

The design of the SM-3DB digital binocular is based at the up-to-date digital technologies. The binocular is aimed for round-the-clock surveillance and objects registration.

The binocular is built around high-sensitive CCD silicone camera with the special electronic accumulation and signal amplification system. The binocular has high-resolution LCD, output for video recorder, and 12V external power supply socket.

The illumination range may vary from 0.0005 Lx (starlight) до 30 000 люкс (sunlight).

The binocular can be supplied with DVR-100 mini digital video recorder as well as IR-530 series IR illuminators with various power and wavelength.

The scope of application: round-the-clock covert observation, search and rescue, navigation, stationary and moving objects registration, etc.

SPECIFICATIONS

| | | |
|-------------------------------------|--|------------------------|
| Lens | F1.6/80 mm | F1.5/110 mm |
| Visual magnification | 8X | 11X |
| Resolution: day night | 420 TV lines 140...420 TV lines | |
| FOV | 6° | 4° |
| Max. range: day night | 600 m 400 m | 700 m 500 m |
| Display | 2.5" LTPS TFT LCD 960X240 | |
| Battery | 4.8V, 4xAA rechargeable | |
| External power supply | DC 12V, 350 mA | |
| Battery life (approx.) | 4 hours | |
| Video output | Standard 1V, 75 Ohm, RCA | |
| Operating temperatures range | -10...+45°C | |
| Dimensions | 230x160x85 mm | 250x170x95 mm |
| Weight | 1.0 kg | 1.35 kg |



DVR-100 digital mini video recorder
with remote control

DIGITAL NIGHT VISION DEVICES

SM-3DB vario DIGITAL BINOCULAR

Built over exclusive digital technology the SM-3DB vario operates during the night as well as day without interruption of its operation while vary-focal (ZOOM) lens allows to carry on observation with variable magnification and field of view.

The binocular can be supplied with DVR-100 mini video recorder as well as IR-530-series IR illuminators of various power and wavelength.

SPECIFICATIONS

| | |
|-------------------------------------|--------------------------------|
| Lens | F1.6 / 5.5-82.5 |
| Visual magnification | 0.6...8X |
| Resolution: day | 420 TV lines |
| night | 140...420 TV lines |
| FOV (horizontal) | 4°...48° |
| Max. range: day | 600 m |
| night | 400 m |
| Power supply | 4.8V, 4xAA rechargeable |
| Battery life (approx.) | 4 hours |
| Video output | Standard 1V, RCA |
| Operating temperatures range | -10...+45°C |
| Dimensions | 230x160x85 mm |
| Weight (w/o batteries) | 1 kg |



DVR-100 digital mini video recorder
with remote control

DIGITAL NIGHT VISION DEVICES

Contour-TV vario (SM-3NVTV)

TV OBSERVATION SYSTEM

Long range TV observation system is aimed at round-the-clock surveillance and registration of stationary and moving objects in wide magnification and FOV range.

The system can be supplied with DVR-100 mini video recorder as well as IR-530-series IR illuminators of various power and wavelength.



SPECIFICATIONS

| | |
|------------------------------|------------------------------------|
| Magnification (14" monitor) | 0.65X...9.5X |
| Lens | F1.6/5.5-82.5 mm (manual control) |
| Back-focal distance | 5.6 - 11.55 mm |
| Mount type | CS |
| Signal/Noise ratio | 20-46dB |
| Element size | 1/3" |
| Resolution: | day Night |
| | 420 TV lines 140...420 TV lines |
| FOV (horizontal) | 48.5°...3.1° |
| Illumination range | 0.0005...30 000 Lx |
| Video output | Analogous RCA |
| Power supply | +10...+12.5V, 400 mA |
| Weight | 0.4 kg |
| Operating temperatures range | -20...+50°C |
| Relative humidity | 98% at 25°C temperature |
| Shock proof | 20 g |
| Atmospheric pressure | 96-104 kPa |



DVR-100 digital mini video recorder
with remote control

LONG RANGE NIGHT VISION DEVICES

SM-3DB 17X

LONG RANGE DIGITAL BINOCULAR

The SM-3DB 17X is aimed at the round-the-clock observation and objects registration at long distances. The high-sensitive element and large aperture 17-power optics allows to achieve the sensitivity close to that of the 2nd generation NV devices.

The binocular can be supplied with a tripod, the DVR-100 mini video recorder as well as IR-530-series infrared illuminators of various power and wavelength.

SPECIFICATIONS

| | |
|-------------------------------------|----------------------------------|
| Lens | F1.6 / 170 |
| Visual magnification | 17X |
| Resolution: day | 420 TV lines |
| night | 140...420 TV lines |
| FOV (horizontal) | 2° |
| Max. range: day | 2000 m |
| night | 1000 m |
| Power supply | 4.8V, 4 x AA rechargeable |
| Battery lifetime (approx.) | 4 hours |
| Video output | Standard, RCA |
| Weight | 2.2 kg |
| Operating temperatures range | -10...+45 °C |
| Dimensions | 380x150x75 mm |



DVR-100 digital mini video recorder with remote control

LONG RANGE NIGHT VISION DEVICES

SM-3NVTV

LONG RANGE TV SYSTEM

SM-3NVTV long range TV system is aimed at round-the-clock observation and registration of stationary and moving objects. Designed on the base of newest digital technologies, the system operates night and day without any interruption, having wide illumination range from 0.0005 Lx (starlight) to 30 000 Lx (sunlight). Its high-aperture optics allows to recognize a human figure at over 1500 m distance at night time.

The system can be supplied with mini video recorder DVR-100 as well as powerful infrared illuminators of IR-530-1000 series with various powers and wavelength with the range up to 2000 meters.

APPLICATION:

- Identification and registration of number plates of cars, vessels etc.
- Covert surveillance.
- Search and rescue.
- Customs inspection.
- Security and law enforcement.

SPECIFICATIONS

| | |
|------------------------------------|---------------------------|
| Lens | F1.6 / 170 |
| Magnification (14" monitor) | 20X |
| Resolution: day | 420 TV lines |
| night | 140...420 TV lines |
| FOV (horizontal) | 2° |
| Max. range: day | 4000 m |
| night | 2000 m |
| Video output | Standard 1V, RCA |
| Weight | 2.0 kg |
| Operating temperature range | -30...+45°C |



DVR-100 digital mini video recorder
with remote control

LONG RANGE NIGHT VISION DEVICES

SM-3 7X

LONG RANGE NIGHT VISION DEVICE

Gen. 2+

The SM-3 7X long range NV device is based on the Gen. 2+ image tube. Is it used for night observation for a distance up to 2000 m.

The device can be supplied with one of the powerful IR laser illuminators (IR-530-810 or IR-530-900) as well as a tripod.



SPECIFICATIONS

| | |
|------------------------------------|--------------------|
| Lens | F1.6/170mm |
| Magnification | 7X |
| FOV | 6° |
| Battery | CR123A |
| Battery lifetime (approx.) | 60 hours |
| Weight | 1.4 kg |
| Dimensions | 380x105 mm |
| Operating temperature range | -30...+45°C |

INFRARED ILLUMINATORS

IR-530-3 (800)**Powerful IR LED illuminator 100 mW, 800nm**

The IR-530-3 (800) powerful IR illuminator is destined to be used with NV devices. The illuminator is based at IR-emitting LED with 800nm wavelength. The IR illuminator has output power adjustment and radiation divergence control.

A mount with base for the installation on NV devices is provided.

**SPECIFICATIONS**

| | |
|-------------------------------------|----------------------------|
| Output radiation power | 100 mW (adjustable) |
| Wavelength | 800 nm |
| Radiation divergence | 5...8° |
| Max. range | 400 m |
| Power supply | 3 V, CR 123 |
| Battery lifetime (approx.) | 4...20 hours |
| Weight | 0.140 kg |
| Dimensions | 130x32 mm |
| Reliability | 10 000 hours |
| Operating temperatures range | -30...+40 °C |

INFRARED ILLUMINATORS

IR-530-3 (940)**Powerful IR LED illuminator 90 mW, 940nm**

The IR-530-3 (940) powerful IR LED illuminator is designed to be used with digital NV devices. The illuminator is built around IR-emitting LED with 940nm length, invisible for the human eye. It has output power adjustment and radiation divergence control. A mount with base for the installation on NV devices is provided.

**SPECIFICATIONS**

| | |
|-------------------------------------|---------------------------|
| Output radiation power | 90 mW (adjustable) |
| Wavelength | 940 nm |
| Radiation divergence | 5...8° |
| Max. range | 200 m |
| Power supply | 3 V, CR 123 |
| Battery lifetime | 4...20 hours |
| Weight | 0.140 kg |
| Dimensions | 130x32 mm |
| Reliability | 10 000 hours |
| Operating temperatures range | -30...+40°C |

INFRARED ILLUMINATORS

IR-530-810**IR-530-900****Powerful long range IR laser illuminators**

Powerful IR laser illuminators designed to be used with NV devices and TV cameras that have the sensitivity in near-IR spectral range. The illuminators have radiation divergence and output power adjustment. Special optics with micro lens raster shapes a uniform pattern and provides the range up to 1000 meters (depending on the receiver).

SPECIFICATIONS

| Model | IR-530-810 | IR-530-900 |
|-------------------------------------|--------------------------|--------------------------|
| Output radiation power | 250 mW adjustable | 250 mW adjustable |
| Wavelength | 810+/-5 nm | 900+/-5 nm |
| Radiation divergence | 2...5° | 2...5° |
| Max. range | 1000 m | 600 m |
| Power supply | 3 V, CR 123 | 3 V, CR 123 |
| Weight | 0.140 kg | 0.140 kg |
| Dimensions | 130x32 mm | 130x32 mm |
| Reliability | 10 000 hours | 10 000 hours |
| Operating temperatures range | -30...+40°C | -30...+40°C |

INFRARED ILLUMINATORS

IR-530-1000-810, 500mW (12V)

IR-530-1000-810, 1000mW (12V)

LONG RANGE IR LASER ILLUMINATORS



A series of powerful IR laser illuminators destined to be used with NV devices and CCD cameras for long range observation. The illuminators have output power and radiation divergence adjustment as well as vertical and horizontal calibration.

SPECIFICATIONS

| Model | IR-530-1000-810 500mW | IR-530-1000-810 1000mW |
|------------------------------|-----------------------|------------------------|
| Laser class | IIIb | |
| Wavelength | 810 ±5 nm | |
| Output power, max, | 500 mW | 1000 mW |
| Max. range | 1000 m | 2000 m |
| Radiation divergence | 2...10° | |
| Power supply | DC 12 V | |
| Dimensions | 150x51 mm | |
| Weight | 0.4 kg | |
| Operating temperatures range | -10...+40°C | |



INFRARED ILLUMINATORS

IR-530-1000-920, 500mW (12V)

IR-530-1000-920, 1000mW (12V)

LONG RANGE IR LASER ILLUMINATORS INVISIBLE TO HUMAN EYE



A series of powerful IR laser illuminators destined to be used with TV systems for long range observation. The illuminators have output power and radiation divergence adjustment as well as vertical/horizontal calibration.

SPECIFICATIONS

| Model | IR-530-1000-920 500mW | IR-530-1000-920 1000mW |
|------------------------------|-----------------------|------------------------|
| Laser class | IIIb | |
| Wavelength | 920±5 nm | |
| Output power, max, | 500 mW | 1000 mW |
| Max. range | 1500 m | 2000 m |
| Radiation divergence | 2...10° | |
| Power supply | DC 12 V | |
| Dimensions | 150x51 mm | |
| Weight | 0.4 kg | |
| Operating temperatures range | -10...+40°C | |



LASER AIMERS

IR-530L**IR LASER AIMER**

The IR-530L IR laser aimer is used with NV devices and provides target designation and aimed firing from various weapons. The IR-530L features output power adjustment, precise vertical/horizontal calibration and universal mount.

**SPECIFICATIONS**

| | |
|---|-------------------------|
| Laser class (mode 1) | II |
| (modes 2, 3) | IIIb |
| Radiation wavelength | 810 nm or 900 nm |
| Range | 500 m |
| Spot diameter (at 100 m distance) | 6 cm |
| Calibration accuracy (at 100 m distance) | 6 cm |
| Power supply | 3V, CR123A |
| Battery lifetime (approx.) | 50 hours |
| Operating temperatures range | -10...+45°C |
| Dimensions | 125x48x40 mm |
| Weight | 0.18 kg |

OPTICS

QUALITY LARGE APERTURE LENSES

- F1.4/26mm**
- F1.6/80mm**
- F1.5/110mm**
- F1.6/170mm**

Our lenses are used with NV devices and low-level TV cameras.
The lenses have M46X0.75 or C-standard coupling size to be installed on TV cameras.

F1.4/26mm



F1.6/80mm



F1.5/110mm



F1.6/170mm



OPTICS

F80 VARIO LENS

The F80 VARIO lens is installed at the SM-3DB digital binocular.
Also it can be used with video surveillance cameras or other devices having 1/3", 2/3" or 1/4" CCD sensor.

SPECIFICATIONS

| | |
|----------------------------|--|
| Focal distance | 5.5-82.5 mm |
| Max. lens aperture | 1.6 |
| Operations | Manual focus Manual ZOOM Manual diaphragm |
| FOV (horizontal) | 48.5°-3.1° |
| Back focal distance | 5.6-11.55 mm |
| Mount | M28X0.75 |
| Dimensions | 82 x 48 mm |
| Weight | 0.220 kg |



FACEMASK

Light and easy to use, our universal face mask of original design provides hands-free operation of Electrooptic night vision monoculars and goggles. The design of our facemask provides individual adjustment and flip-up mechanism.



DVR-100 Digital Video Recorder

The digital video recorder is designed for recording video information from any source of video signal in AVI format as well as viewing video picture through the in-built LCD monitor, PC or TV. The DVR ideally suits for digital NV devices, covert observation cameras, security video surveillance systems as well as storage of video files and other information.

The DVR-100 features:

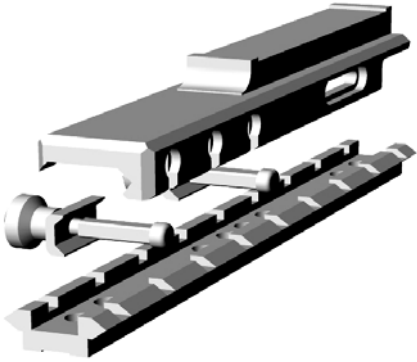
- wireless function control with compact remote control unit,
- 4GB memory, 220 minutes of recording time,
- USB 2.0 port,
- over 4 hours of continuous operation.

SPECIFICATIONS

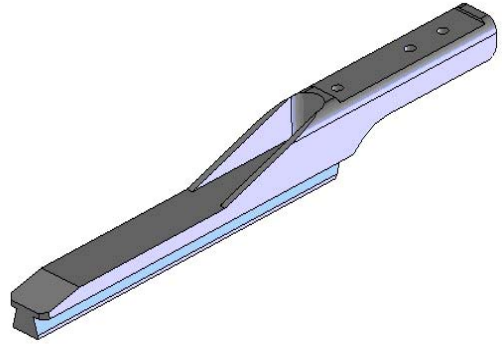
| | |
|-------------------------|----------------------------------|
| Display | LCD 2.4" |
| Video format | AVI |
| Video resolution | 640x480, 480x240, 160x120 |
| In-built memory | 4GB |
| Ports | AV in/out, USB 2.0 |
| Battery | NOKIA, 1400 mA/h |
| Battery life | 300 min. |
| Dimensions | 78x55x20 mm |



MOUNTS FOR RIFLESCOPES



Weaver mount



Europrism mount