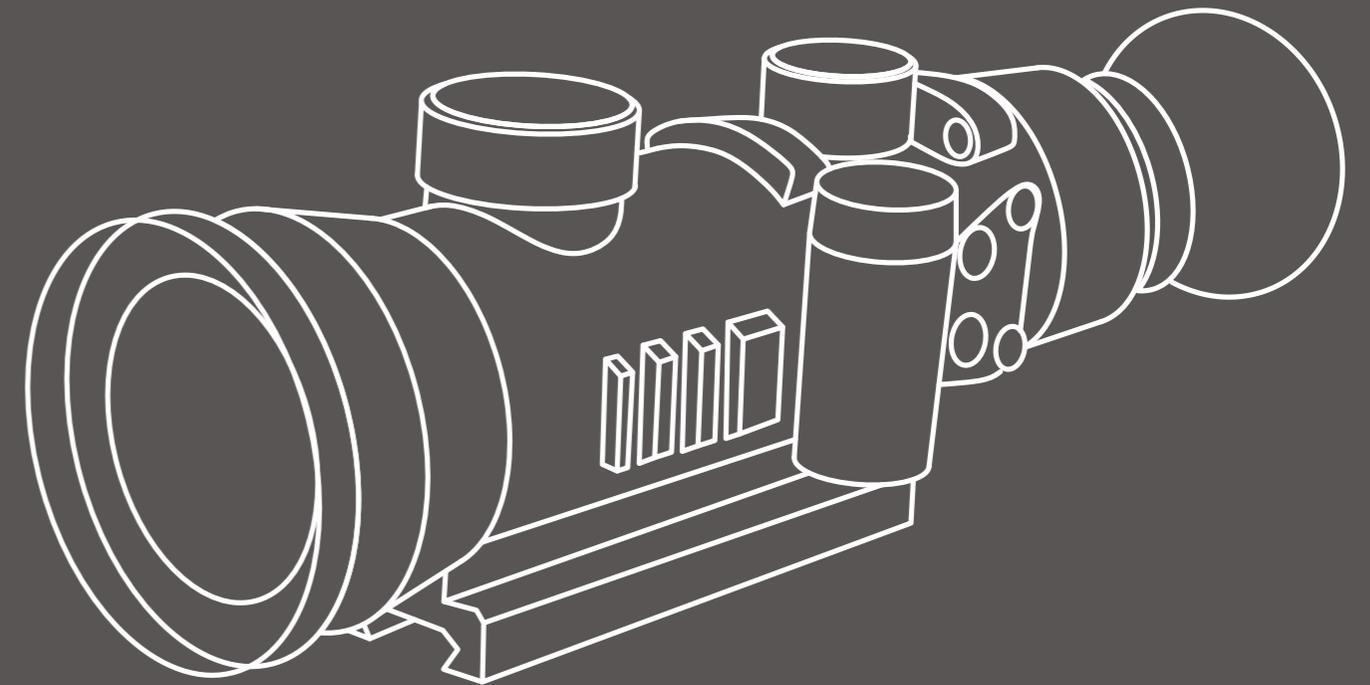


# NEOS NV

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NIGHT VISION DEVICES

The present catalog is an advertising material.  
The information contained is for informational purposes only  
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NEOS NV in collaboration with is a world leading image intensifier tubes (IIT) manufacturer - scientific and production enterprise Ekran FEP represents a night vision devices (NVD) line, made on a base of hi-end IITs of different modifications.

NVD are intended not only for civil purposes, but also for special purposes. Devices are characterised by high parameters, compact size, durability and are the universal tool for observing, technical support of law enforcement forces, security, searching, hunting and exploring wildlife at night time .

NEOS NV and Ekran FEP team

# Monocular FEP MNV



## FEP

Monocular MNV is intended for observing objects in the evening and at night. This device is a universal tool for observing, technical support of law enforcement forces, security, searching, hunting and exploring the world of wildlife at night.

In the monocular installed high-quality IIT 2+ and 3 gen. Monocular can be installed on the helmet or weapon.

Devices are compact and have low weight. They are airtight, protected from dust and moisture, it avoids to use them in conditions of high humidity (rain, snow, fog).

Wide range of additional accessories for the monocular is available: mounting on a helmet, interchangeable 3x and 5x lenses, bracket for mounting on weapons. Device has low battery indicator in the field of view.

Devices are produced on the basis of IIT with green and white color of screen luminescence to provide a more comfortable condition for long-term observation without eye fatigue.



Optical parameters	MNV
Lens magnification	x1; x3; x5; x8
Optical system, mm	26,8mm F/1,2
Focus range, m	0,25 till (∞)
Angular field of view, deg	40 +2
Eyepieces diopter adjustment	+5/-5
Output pupil diameter, mm	15

Power options	MNV
Power supply	CR123 1 pcs
Supply voltage	3V
Operating time, not less	with IR-illumination 20 hours, without IR-illumination 40 hours

IIT technical parameters	IIT 2+	IIT 3
Type of the photocathode	Multialkali	GaAs
Integral sensitivity of the photocathode, mkA/lm	350-800	1900-2600
Limiting resolution, lp/mm	45-72	45-72
Gain	20 000 – 40 000	40 000 – 80 000
Signal-to-noise ratio at 108 μlx	15-25	28-35
BSP	Available	
MTTF, h	10 000	
Detection range, m:*		
- quarter moon up to	200/220	300/330
- cloudy sky up to	175/190	250/275
Recognition range, m:		
- quarter moon up to	145/160	225/245
- cloudy sky up to	115/125	175/190

\* The detection range of the object is determined by the IIT generation and may vary depending on weather and other factors.

General parameters	MNV
Dimensions, mm	163x76x55
Weight, gram	384

Operating conditions	The standard kit includes:
1. Ambient temperature from -50 to +55 C°	1. Night vision monocular 1 pcs.
2. Relative humidity 98% at the temperature 25 C°	2. Lens 1 pcs.
3. Impact Resistance 5g	3. Power supply (CR123) 1 pcs.
	4. Bag 1 pcs.
	5. User's manual 1 pcs.
	6. Lens cleaning cloth 1 pcs.
	7. Helmet (optional) 1 pcs.*

\*Additional option is not included in standard kit

## Monocular FEP MNV mini



**FEP**

Monocular MNV mini is intended for observing objects in the evening and at night. This device is a universal tool for observing, technical support of law enforcement forces, security, searching, hunting and exploring the world of wildlife at night.

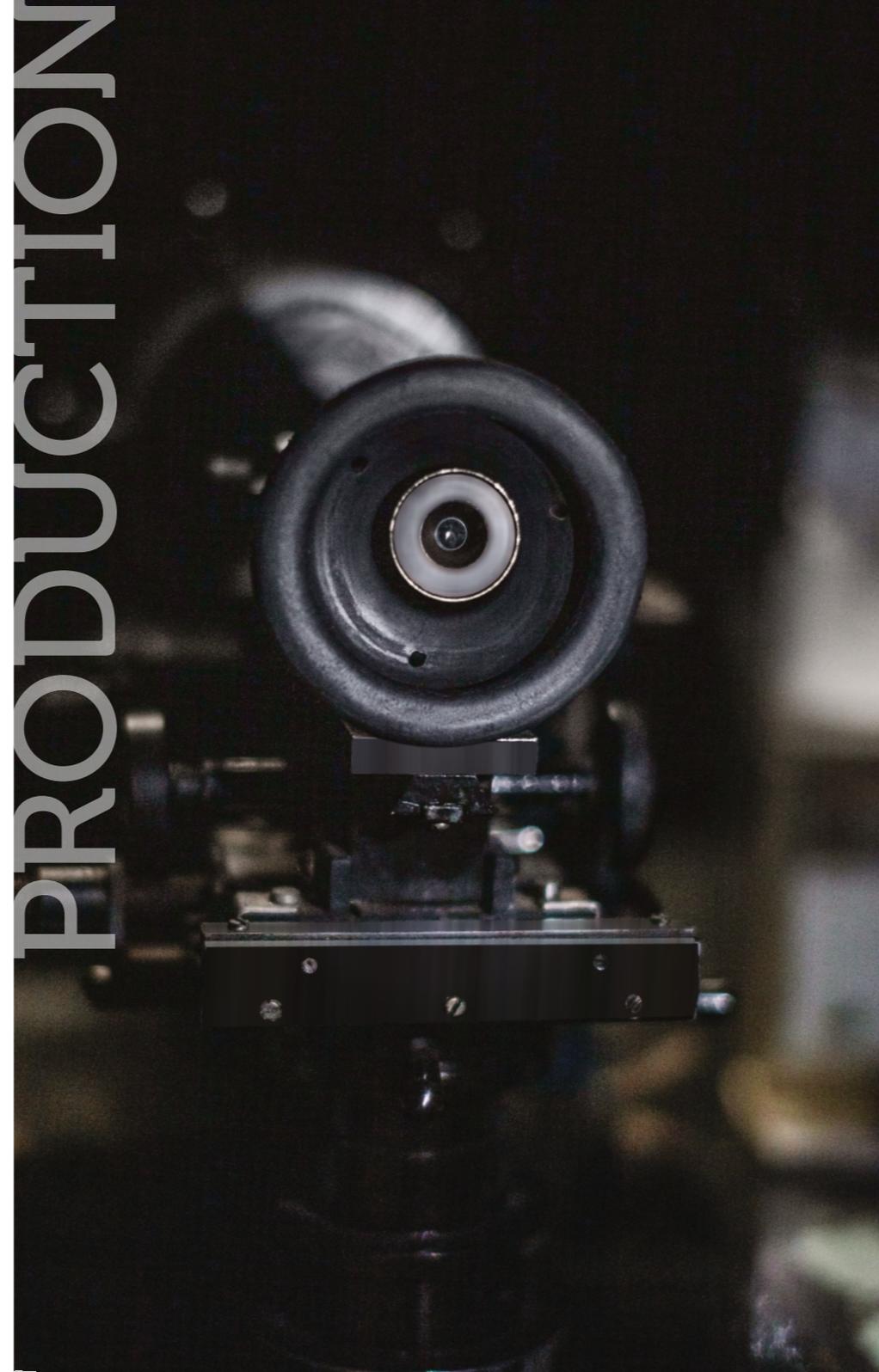
In the monocular installed high-quality IIT 2+ and 3 gen. Monocular can be installed on the helmet or weapon.

Devices are compact and have low weight. They are airtight, protected from dust and moisture, it avoids to use them in conditions of high humidity (rain, snow, fog).

Wide range of additional accessories for the monocular is available: mounting on a helmet, interchangeable 3x and 5x lenses, bracket for mounting on weapons. Device has low battery indicator in the field of view.

Devices are produced on the basis of IIT with green and white color of screen luminescence to provide a more comfortable condition for long-term observation without eye fatigue.

PRODUCTION



Optical parameters	MNV mini
Lens magnification	x1; x3; x3,5; x5; x7
Optical system, mm	26,8mm F/1,2
Focus range, m	0,25 till (∞)
Angular field of view, deg	40
Eyepieces diopter adjustment	+5/-5
Output pupil diameter, mm	15

Power options	MNV mini
Power supply	CR123 1 pcs
Supply voltage	3V
Operating time, not less	with IR-illumination 20 hours, without IR-illumination 40 hours

IIT technical parameters	IIT 2+	IIT 3
Type of the photocathode	Multialkali	GaAs
Integral sensitivity of the photocathode, mkA/lm	350-800	1900-2600
Limiting resolution, lp/mm	45-72	45-72
Gain	20 000 – 40 000	40 000 – 80 000
Signal-to-noise ratio at 108 μlx	15-25	28-35
BSP	Available	
MTTF, h	10 000	
Detection range, m:*		
- quarter moon up to	200/220	300/330
- cloudy sky up to	175/190	250/275
Recognition range, m:		
- quarter moon up to	145/160	225/245
- cloudy sky up to	115/125	175/190

\* The detection range of the object is determined by the IIT generation and may vary depending on weather and other factors.

General parameters	General parameters
Dimensions, mm	Dimensions, mm
Weight, gram	Weight, gram

Operating conditions	The standard kit includes:
1. Ambient temperature from -50 to +55 C°	1. Night vision monocular 1 pcs.
2. Relative humidity 98% at the temperature 25 C°	2. Lens 1 pcs.
3. Impact Resistance 5g	3. Power supply (CR123) 1 pcs.
	4. Bag 1 pcs.
	5. User's manual 1 pcs.
	6. Lens cleaning cloth 1 pcs.
	7. Helmet (optional) 1 pcs.*

\*Additional option is not included in standard kit

## Monocular FEP light



### FEP

Monocular MNV-L is intended for observing objects in the evening and at night. This device is a universal tool for observing, technical support of law enforcement forces, security, searching, hunting and exploring the world of wildlife at night.

In the monocular installed high-quality IIT 2+ and 3 gen. Monocular can be installed on the helmet or weapon.

Devices are compact and have low weight. They are airtight, protected from dust and moisture, it avoids to use them in conditions of high humidity (rain, snow, fog).

Wide range of additional accessories for the monocular is available: mounting on a helmet, interchangeable 3x and 5x lenses, bracket for mounting on weapons. Device has low battery indicator in the field of view.

Devices are produced on the basis of IIT with green and white color of screen luminescence to provide a more comfortable condition for long-term observation without eye fatigue.



Optical parameters	MNV-L
Lens magnification	x1
Optical system, mm	26,8mm F/1,2
Focus range, m	0,25 till (∞)
Angular field of view, deg	40 +2
Eyepieces diopter adjustment	+3/-5
Output pupil diameter, mm	16

Power options	MNV-L
Power supply	CR123 1 pcs
Supply voltage	3V
Operating time, not less	with IR-illumination 20 hours, without IR-illumination 40 hours

IIT technical parameters	IIT 2+	IIT 3
Type of the photocathode	Multialkali	GaAs
Integral sensitivity of the photocathode, mkA/lm	350-800	1900-2600
Limiting resolution, lp/mm	45-72	45-72
Gain	20 000 – 40 000	40 000 – 80 000
Signal-to-noise ratio at 108 μlx	15-25	28-35
BSP	Available	
MTTF, h	10 000	
Detection range, m:*		
- quarter moon up to	200/220	300/330
- cloudy sky up to	175/190	250/275
Recognition range, m:		
- quarter moon up to	145/165	225/245
- cloudy sky up to	115/125	175/190

\* The detection range of the object is determined by the IIT generation and may vary depending on weather and other factors.

General parameters	MNV-L
Dimensions, mm	100x58x40
Weight, gram	230 * without power supply

Operating conditions	The standard kit includes:
1. Ambient temperature from -50 to +55 C°	1. Night vision monocular 1 pcs.
2. Relative humidity 98% at the temperature 25 C°	2. Lens 1 pcs.
3. Impact Resistance 5g	3. Power supply (CR123) 1 pcs.
	4. Bag 1 pcs.
	5. User's manual 1 pcs.
	6. Lens cleaning cloth 1 pcs.
	7. Helmet (optional) 1 pcs.*

\*Additional option is not included in standard kit.

# Night sight FEP RM 400



## FEP

Series of night sights RM400 is intended for long-range targeted shooting at night, with high accuracy in the most adverse weather conditions.

Devices are available with IIT gen 2+,3, which provide a high-quality image across the entire image plane.

Characteristics of optics and IIT allows to identify and recognize the target at the maximum possible distances without using an IR-illuminator. Sight's lenses have special high-power optics.

The devices are compact and light in weight, ensuring optimal balancing of the weapon.

The sights are sealed, protected from dust and moisture penetration (class IP67), it confidently allows to use them in condition of high humidity (rain, snow, fog).

Each sight adapts to different Russian or foreign weapons without any problems.

Aiming is carried out using a grid Mil-Dot, which avoid throw the grid of sight determine the distance to the target, knowing its approximate size.

Devices are produced on the basis of IIT with green and white color of screen luminescence to provide a more comfortable condition for long-term observation without eye fatigue.



Optical parameters	RM 400
Lens magnification	4x
Angular field of view, deg	12
Focus range, m	10 till (∞)
Eyepieces diopter adjustment	+5/-5
Output pupil diameter, mm	46

Power options	RM 400
Power supply	CR123 1 pcs.
Supply voltage	3V
Operating time, not less	60 hours

IIT technical parameters	IIT 2+	IIT 3
Type of the photocathode	Multialkali	GaAs
Integral sensitivity of the photocathode, mkA/lm	350-800	1900-2600
Limiting resolution, lp/mm	45-72	45-72
Gain	20 000 – 40 000	40 000 – 80 000
Signal-to-noise ratio at 108 μlx	15-25	28-35
BSP	Available	
MTTF, h	10 000	
Detection range, m:*	400	480
- quarter moon up to	310/350	400/440
- cloudy sky up to	200/220	250/275
Recognition range, m:		
- quarter moon up to	180/200	180/200
- cloudy sky up to	150/175	150/175

\* The detection range of the object is determined by the IIT generation and may vary depending on weather and other factors.

General parameters	RM 400
Dimensions, mm	242x79x84
Weight, gram	955

Operating conditions	The standard kit includes:
1. Ambient temperature from -40 to +50 C°	1. Night vision sight 1 pcs.
2. Relative humidity 98% at the temperature 25 C°	2. Power supply (CR123) 1 pcs.
3. Impact Resistance 375H6H cal.	3. User's manual 1 pcs.
	4. Lens cleaning cloth 1 pcs.
	5. Case (optional) 1 pcs.*

\*Additional option is not included in standard kit

## Night Vision Sights FEP RM 583 / RM 580 / RM 581



### FEP

Series of night sights RM 583 / RM 580 / RM 581 is intended for long-range targeted shooting at night, with high accuracy in the most adverse weather conditions.

Devices are available with image intensifier tubes (IIT) gen 2+,3, which provide a high-quality image across the entire image plane.

Characteristics of optics and IIT allows to identify and recognize the target at the maximum possible distances without using an IR-illuminator. Sight's lenses have special high-power optics.

The devices are compact and light in weight, ensuring optimal balancing of the weapon.

The sights are sealed, protected from dust and moisture penetration (class Ip67), it confidently allows to use them in condition of high humidity (rain, snow, fog).

Each sight adapts to different Russian or foreign weapons without any problems.

Aiming is carried out using a grid Mil-Dot, which avoid throw the grid of sight determine the distance to the target, knowing its approximate size.

Devices are produced on the basis of IIT with green and white color of screen luminescence to provide a more comfortable condition for long-term observation without eye fatigue.



Optical parameters	RM 583	RM 580	RM 581
Optical system, mm	80 mm/F1,6	110 mm/F1,5	150 mm/F2,0
Magnification	3x	4,4x	6x
Angular field of view, deg	12	9,3x	10x
Focus range, m	от 10 till (∞)		
Eyepieces diopter adjustment	-4 ~ +3		
Output pupil remove, mm	45		

Power options	RM 583 / RM 580 / RM 581
Power supply	CR123 1 pcs.
Supply voltage	3V
Operating time, not less	60 hours

IIT technical parameters	IIT 2+	IIT 3
Type of the photocathode	Multialkali	Ca As
Integral sensitivity of the photocathode, mkA/lm	350-800	1900-2600
Limiting resolution, lp/mm	45-72	45-72
Gain	20000-40000	40000-80000
Signal-to-noise ratio at 108 μlx	15-25	28-35
BSP	Available	
MTTF, h	10 000	
Detection range, m:*		
- quarter moon up to	310/350	400/440
- cloudy sky up to	200/220	250/275
Recognition range, m:		
- quarter moon up to	180/200	250/275
- cloudy sky up to	150/175	200/220

\* The detection range of the object is determined by the IIT generation and may vary depending on weather and other factors.

General parameters	RM 583	RM 580	RM 581
Dimensions, mm	269x99x87	294x89x81	303x85x84
Weight, gram	1120	1300	1500

Operating conditions	The standard kit includes:
1. Ambient temperature from -40 to +50 C° 2. Relative humidity 98% at the temperature 25 C° 3. Impact Resistance 375H6H cal.	1. Night vision sight 1 pcs. 2. Power supply (CR123) 1 pcs. 3. User's manual 1 pcs. 4. Lens cleaning cloth 1 pcs. 5. Case (optional) 1 pcs.*

\*Additional option is not included in standard kit

## Night vision goggles FEP GNV-7



### FEP

Night vision goggles GNV-7 is intended for orientation when moving around the area, visual observation of various objects, texts and cards reading in natural night light conditions, twilights, cloudy moonless night and in absolute darkness.

Devices are available with IIT gen 2+,3, which provide a high-quality image across the entire image plane.

Goggles can be used for security and rescue operations, for hunting, studying the night world of wildlife.

Night vision goggles GNV-7 are irreplaceable as for specific tasks, which require a free hand, as for conditions where necessary to use glasses as "binoculars" for night vision. GNV-7 has a special mount for mounting on a helmet.

Devices are produced on the basis of IIT with green and white color of screen luminescence to provide a more comfortable condition for long-term observation without eye fatigue.

PRODUCTION



Optical parameters	GNV-7
Lens magnification	1x
Optical system, mm	26,8mmF/1,2
Focus range, m	0,25 till (∞)
Angular field of view, deg	40
Eyepieces diopter adjustment	-4/+5
Output pupil remove, mm	15

Power options	GNV-7
Power supply	AA 2 pcs
Supply voltage	3V
Operating time, not less	without IR-illumination 40 hours

IIT technical parameters	IIT 2+	IIT 3
Type of the photocathode	Multialkali	Ca As
Integral sensitivity of the photocathode, mkA/lm	350-800	1900-2600
Limiting resolution, lp/mm	45-72	45-72
Gain	20000-40000	40000-80000
Signal-to-noise ratio at 108 μlx	15-25	28-35
BSP	Available	
MTTF, h	10 000	
Detection range, m:*		
- quarter moon up to	200	300
- cloudy sky up to	175	250
Recognition range, m:		
- quarter moon up to	115	175
- cloudy sky up to	115	175

\* The detection range of the object is determined by the IIT generation and may vary depending on weather and other factors.

General parameters	GNV-7
Dimensions, mm	191x152x81
Weight, gram	530

Operating conditions	The standard kit includes:
1. Ambient temperature from -40 to +50 C°	1. Night vision goggles 1 pcs.
2. Relative humidity 98% at the temperature 25 C°	2. Lens 1 pcs.
3. Impact Resistance 5g	3. Power supply (AA) 2 pcs.
	4. Bag 1 pcs.
	5. User's manual 1 pcs.
	6. Lens cleaning cloth 1 pcs.
	7. Helmet (optional) 1 pcs.*
	8. Case (optional) 1 pcs.*

\*Additional option is not included in standard kit