



Victory over the Darkness



Armed Forces Optics
2012





Meopta is committed to excellence proven by 76 years of its activities on the world's markets. Meopta with 2600 skilled people on the manufacturing area over 160 000 m² located in Přerov, Czech Republic, EU is one of the biggest and most renewed optical manufacturers and exporters in Europe. Meopta production quality is certified by ISO 9001, ISO 14001 and AQUAP 2110 standards. Meopta owns also many certificates ensuring quality to their customers, e.g. Zeiss Grade A Suppliers Certificate, etc.

- Military optical program since 1937 (fortress & submarine periscopes, binoculars, artillery sights, riflescopes, armored vehicles devices, etc.)
- Recognized as one of the elite brands for Optics in Europe
- OEM Manufacturer for all leading high-end brands on the market
- High investments and state of the art technology in spherical and plane optics, multicoating, precise machinery, fine assembly and testing
- Product of exceptional quality, performance, robustness and long term stability
- Compliance with global and national military standards
- Exports to 55 countries worldwide
- One of the biggest optical manufacturer in Europe



Meopta product range	
Optical devices	Binoculars, Riflescopes, Spotting Scopes
Optronic devices	Night Vision Scopes, NV Sights and Goggles, ...
Optronic subsystems	Semiconductor industry scanners, RTG tubes for medical applications, Science and Aerospace application devices, ...
Opto-mechanical systems and elements	Objective lenses, prism assemblies, combiners, color splitters for digital projection, ...

Individual	Tank and Armored Vehicle (T-72, BMP-2, Pandur, ...)	
<p>BINOCULARS BD 8x56, BD 8x32, BD 10x32, BD 7x42, BD 8x42, BD 10x42, BD 7x50, BD 10x50, BD 12x50</p> <p>TACTICAL SPOTTING SCOPE SP 75, SP 75 HD, SP 82 HD Angled, Straight</p> <p>RIFLESCOPE ZD 1,8x22, ZD 2-8x42, ZD 4-16x44, ZD 3-12x50 Tactic ZD 1-4x22, ZD 3-12x56, ZD 6-24x56, ZD 4x22 WA</p> <p>RD REFLEX SIGHT Meosight 30/50, M-RAD FL, ZD-Dot</p> <p>GUNSIGHTS ZD 3x20 GRD, ZD 5x40 GRD</p> 	<p>STEREOSCOPIC PERISCOPES M-27 MEO</p> 	
<p>MEOPTA MODULAR SYSTEM FOR ASSAULT RIFLE NV-Mag 3, ZD-Dot, DV-Mag 3, M-Rad FL</p> 	<p>COMBINED DAY/ NIGHT VISION DRIVERSCOPIES CDND-1, DND-5</p>  	
<p>NIGHT VISION GOGGLES KLARA</p> <p>NIGHT VISION BINOCULAR KLARA with Affocal 4x</p> <p>NIGHT VISION MONOCULAR & SIGHT monoKLARA</p> <p>NIGHT VISION SIGHTS ZN 4 LYNX, ZN 6x</p> 	<p>COMMANDER DAY/ NIGHT VISION SCOPES TKN-3P, TKN-3BP</p> <p>GUNNER SCOPE DAY/NIGHT VISION BPK-3</p>  	
<p>NIGHT VISION DRIVERSCOPE NV-3P</p> 		
☀	☀/☾	☾

MEOPTA MODULAR SYSTEM FOR ASSAULT RIFLE



Each type of deployment and external condition require different weapon and sighting systems. Meopta Modular System allows a flexible use of sight moduls combinations which allow:

- use of the suitable sight set suitable for the weapon and deployment type
- a change of the sight system according to the actual situation and conditions

Meopta Modular System is designed for assault rifles and PDWs which become so the real tactical tool in any combat situation.

ZD-Dot red dot sight is a ruggedized and shock-proof tool suitable for any automatic rifle. Electronic regulation of the red dot intensity offer 10 levels for daytime and 10 intensity levels for nighttime. Enhanced optical parameters eliminate reflections, astigmatism and both vertical and horizontal parallax. The unit is powered by one AA battery.



ZD-Dot



DV-Mag3

Versatile and adaptable for any combat situation
Robust and resistant to all weather conditions
Universal for use on any type of assault rifle or PDW

Technical specification	NV-Mag 3	DV-Mag 3
Magnification	3x	3x
Eye relief	35 mm	min. 60 mm
Field of View	14 °	6 °
Dioptic correction	± 4D	- 2 to + 1,5 D
Image Intensifier Tube	XD-4 / eq. gen III; XR5 / eq. gen IV	-
Image Intensifier Tube resolution	XD-4 64 lpmm / XR-5 72 lpmm	-
Rectification range	± 40 MOA	-
Power supply	1 x battery AA, 1,2 - 3,6 V	-
Power supply autonomy	72 hrs	-
Operating Temperature Range	- 40°C to + 55°C	- 40°C to + 55°C
Water / hermetic resistance	2 m / 2 hours	2 m / 2 hours
Dimensions (L x W x H)	185 x 85 x 75 mm	120 x 45 x 45 mm
Weight (mount and battery included)	800 g	270 g

NV-Mag 3 together with a red dot sight (ZD-Dot or M-RAD) becomes a night vision riflescope for precise and quick target acquisition at night. Maximal objective lens diameter together with lightweight design makes the device suitable for the use on any assault rifle or PDW.

DV-Mag 3 combined with a red dot sight (ZD-Dot or M-RAD) is used for precise target acquisition in daytime conditions. Fact-focus eyepiece and quick set-up of the sighting position optimize the operators quick target acquisitions. High optical performance together with reduced weight make the device suitable for any automatic rifle.

Technical specification	ZD-Dot
Magnification	1x
Eye relief	unlimited
Red dot size	1,5 or 3 MOA
Resistance on	MIL-STD 810
Rectification range	± 50 MOA
Operating Temperature Range	- 40°C to + 55°C
Water / hermetic resistance	2 m / 2 hours
Power supply	1 x battery AA , 1,2 - 3,6 V
Power supply autonomy	min. 800 hours
Dimensions (L x W x H)	158 x 68 x 78 mm
Weight	390 g



NV-Mag 3

MEOPTA RED DOT REFLEX SIGHTS

M-RAD (Meopta Rapid Acquisition Dot) is one of the smallest and powerful red dot sights available on the market. Waterproof and shock-proof device with incorporated picatinny rail interface is an universal sight for any weapon in all conditions.

M-RAD FL model - thanks to the flat construction and detachable quick-release mount - can be used on any type of weapon: the desired optical height is set by additional spacers, the mount can be adapted for any kind of rifle on request (such as for shotgun, pistol, older or new models of assault rifles, etc.)



Police shotgun with M-RAD

Extreme reliability thanks to the intelligent battery monitoring
 Eight levels of dot intensity in day mode/ 8 levels in night mode
 Night Vision compatible
 Auto-off function
 Zero-lock technology
 Picatinny rail quick release mount
 Waterproof



M-RAD FL



Meosight II 30



Parallax free optical design
 Deployable across weapons platforms
 Universal 4 pins flat interface suitable for a placement on other optical devices (riflescope, night-vision sight, thermo-vision sight,...)
 Waterproof

MEOPTA GUNSIGHTS

The **Meopta ZD 3x20** is a very small and light aiming scope for use on any firearm, especially on PDWs and assault rifles. It allows medium range shooting by keeping the gun system very light. The RD models are equipped by reticule illumination allowing using the system in various light conditions.

The day sight consists of prism erector system, reticule (illuminated in RD models), focused eyepiece, protective caps for objective and eyepiece, horizontal and vertical rectifiers and multi-purpose interface for various weapons integration.



ZD 3x20 RD with Meosight II 30



ZD 3x20 RD

Suitable for assault rifles and PDWs
 Robust and resistant to all weather conditions
 Illuminated reticule
 Small and light

Technical specification	ZD 3x20	ZD 3x20 RD
Magnification		3x
Field of View		6°
Objective Lens Diameter		20 mm
Eye Relief		min 65 mm
Dioptic correction		-4 to +3 D
Weight		420 g
Dimensions (L x W x H)		126 x 70 x 70 mm
Rectification Range		± 50 MOA
Rectification Step		1 MOA
MIL Standards	MIL STD 810, STANAG 2914, STANAG 2985	
Shock Resistance	500 G	
Water/ hermetic resistance	2m / 2hod	
Operation Temperature Range	-40 °C to + 55 °C	
Storage Temperature Range	-45 °C to + 71 °C	
Reticule illumination intensity control	NO	YES
Reticule	point 2 MOA with circle 30 MOA, arrow 300 to 500 m for cal. 5,56 and 7,62x51 + 2 stabilization marks	

The Meopta ZD 5x40 is a small and light aiming scope for use on any firearm, especially on PDW's and assault rifles. It allows medium range shooting by keeping the gun system very light. The RD models are equipped by reticle illumination allowing so using the system in various light conditions. The day sight consists of prism erector system, reticle (illuminated in RD models), focused eyepiece, protective caps for objective and eyepiece, horizontal and vertical rectifiers and multi-purpose interface for various weapons integration.



ZD 5x40 RD

Suitable for assault rifle and machine gun
Illuminated reticle
Robust and resistant construction
Favorable power/size ratio



ZD 5x40 RD with Meosight II 30

Technical specification	ZD 5x40	ZD 5x40 RD
Magnification		5x
Field of View		4°
Objective Lens Diameter		40 mm
Eye Relief		min 65 mm
Dioptric correction		-4 to +3 D
Weight		490 g
Dimensions (L x W x H)		185 x 70 x 70 mm
Rectification Range		±50 MOA
Rectification Step		1 MOA
MIL Standards		MIL STD 810, STANAG 2914, STANAG 2985
Shock Resistance		500 G
Water / hermetic resistance		2 m / 2 hours
Operation Temperature Range		-40 °C to + 55 °C
Storage Temperature Range		-45 °C to + 71 °C
Reticle	point 1,5 MOA with circle 18 MOA	Machine gun reticle 300-900m, 0,5 and 1 m/s, arrows 300 to 900m for cal. 5,56 and 7,62x51 + 2 stabilisation marks

Meopta Tactical Riflescopes are designed for extremely difficult light and weather conditions. The extremely high light gathering capability, image clarity and durability of the Meopta Tactical Riflescopes together with a large choice of tactical reticules gives the shooters the products they need to be successful.



Model	ZD 1,8x22	ZD 2-8x42	ZD 1-4x22	ZD 3-12x50	ZD 3-12x56	ZD 4-16x44	ZD 6-24x56	ZD 1-4x22 WA
Magnification	1,8x	2-8x	1-4x	3-12x	3-12x	4-16x	6-24x	4x
Objective Lens Diameter (mm)	22	42	22	50	56	44	56	22
Field of View (m/100m)	16,8	16,6-5,1	8,5-34	11,1-3,5	11,1-3,5	8,2-2,4	5,6-1,5	8°
Eye Relief (mm)	80	75	80	75	75	80	80	40
Rectification Range (MOA)	min. 80 (±40)	min. 80 (±40)	min. 80 (±40)	min. 40 (±20)	min. 40 (±20)	min. 40 (±20)	min. 80 (±40)	min. 80 (±40)
Rectification Step (one click)	1,5 cm/100m 1/2 MOA	1 cm/100m 1/3 MOA	1,5 cm/100m 1/2 MOA	0,5 cm/100m 1/6 MOA	1 cm/100m 1/3 MOA	0,5 cm/100m 1/6 MOA	0,75 cm/100m 1/4 MOA	1/2 MOA
Reticle Options	G	MIL-DOT V-DOT	K-5,56	MIL-DOT V-DOT MIL-DOT V	MIL-DOT V-DOT MIL-DOT V	MIL-DOT special	MIL-DOT special	K-5,56
Reticle Illumination (level) * NV compatible	7	7	7*	7	7	7	256*	7
Power Supply * CR 2354 optional	1 x battery CR2032 *	1 x battery CR2032 *	1 x battery CR2032	1 x battery CR2032 *	1 x battery CR2032 *	1 x battery CR2032 *	1 x battery CR2032 *	1 x battery CR2032 *
Dioptric Correction (D)	±3	±3	±3	±3	±3	±3	±3	±3
Weight (g)	500	770	530	750	865	750	850	375
Tube Diameter (mm)	30	30	30	30	30	30	30	30



Meopta **ZD 6-24x56** is a long range scope designed for sniper rifles chambered 7,62x51 NATO or .338 LM or 12.7mm calibers. A wide range of adjustment (based on bullet ballistics) allows the operator to achieve extended distances according to the rifle and ammunition utilized. Extensive light transmission and field testing have allowed the 6-24x56 riflescope to achieve a precise aiming for any target.

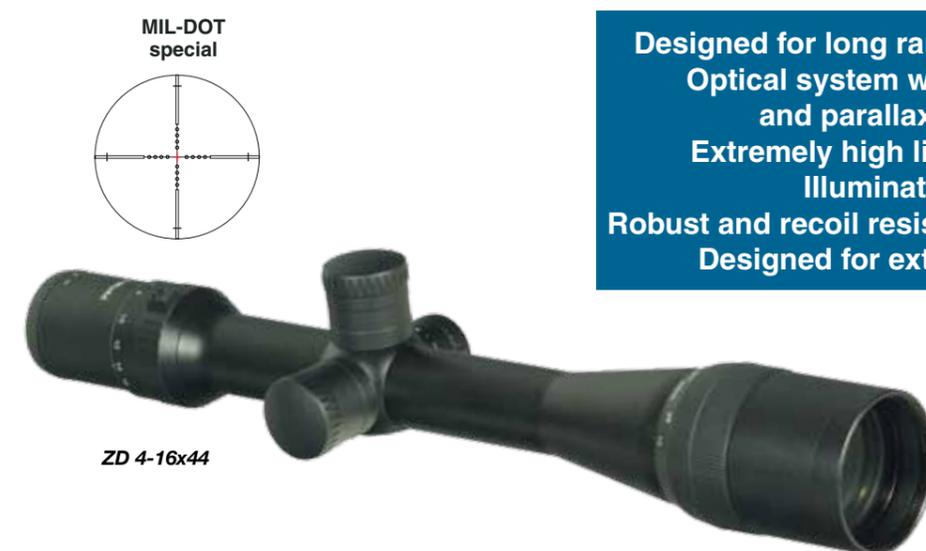
**Designed for long range shooting
Ideal for 7,62x51 NATO and .338 LM
calibers
Wide adjustment range
Exceptional light transmission
Designed for extreme enviromental
and low visibility conditions**



Meopta Riflescope on Barrett sniper rifle

The **ZD 4-16x44** Tactical riflescope is designed for use by Special Forces Ops and world-class professional target shooters for distances up to 800 meters. Featuring an adjustable objective for setting zero parallax at distances from 3 meters to infinity, the ZD 4-16x44 is the definition of accuracy. Tactical target turrets feature 0,5 cm / 100 m positive click-stop adjustment for unparalleled repeatability and tracking performance. The elevation turret allows calibration of bullet drop to virtually any known distance and can be reset to zero. The windage turret allows for quick left/right adjustment to compensate for bullet drift due to crosswinds. Equipped with a special Mil-Dot style reticle the ZD 4-16x44 enables the shooter to determine quickly and precisely the exact distance of an intended target at almost any range. Forged from a single piece of aircraft grade aluminum the tube's main body houses premium grade 30mm internal optics with an etched glass reticle for rugged, shockproof durability. Nitrogen purged, the scope is 100% waterproof, dustproof and fogproof. All precision lenses are fully multi-coated with MeoBrite 550 anti-reflective lens coatings to offer an industry best 99.8% light transmission per lens surface (95% overall transmission).

**Designed for long range shooting snipers
Optical system with variable zoom
and parallax adjustment
Extremely high light transmission
Illuminated reticle
Robust and recoil resistant tube construction
Designed for extreme conditions**



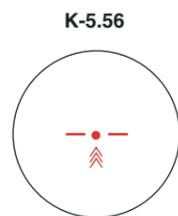
ZD 4-16x44 on a Accuracy International sniper rifle

Meopta tactical riflescopes **ZD 4x22 WA** and **ZD 1-4x22** are especially developed for deployment on automatic assault rifles in extremely difficult environmental and weather conditions.

The universal riflescope **ZD 1-4x22** thanks to the highly illuminated reticle and magnification x1 might be used as a reflex sight. The same scope might be quickly transformed to a medium range sight by increasing its magnification up to x4. The riflescope is equipped by a ballistic reticle for sighting at 100, 200, 300, 400 and 500 m with the calibers 5,56x45 or 7,62x39.

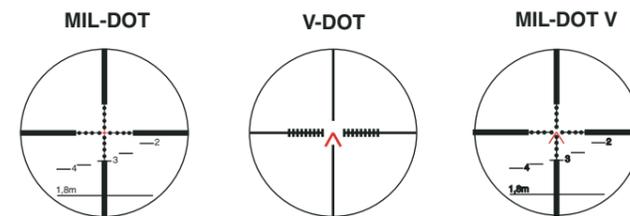
The riflescope **ZD 4x22 WA** offers the shooter extremely wide field of view 8° which makes the sight a good choice for who needs a good overview of the battlefield and the same time ability for medium range shooting. The illuminated reticle offers a precise sighting feature as well as a distance measuring scale for the targets at the distance up to 500 m.

**Suitable especially for assault rifles
Universal scopes for short and medium
range shooting
Designed for extremely difficult
environmental and weather conditions**



ZD 1-4x22 on CZ 805 BREN

Meopta riflescopes **ZD-3-12x50 Tactic** and **ZD 3-12x56** are specially designed for shooting in low visibility conditions. The optical systems with variable zoom are designed for providing secure aiming in medium and long range shooting. Compact steel tube at ZD 3-12x50 Tactic and high grade aluminum tube at ZD 3-12x56 with the highest impact resistance, enhanced optical performance and water resistance make these scopes ideal for all types of rifles under extreme conditions. Ballistic scale on the rectification is standardly made for 7.62x51 NATO Caliber (.308W) with 168 gr (10, 9 g) bullet, may be modified for other calibers as well.



**Specially designed for
low visibility condition
Optical system with variable zoom
Extremely high light transmission
Robust and recoil resistant
tube construction
Designed for extreme conditions**



ZD 3-12x50 on AMT DSR sniper rifle

MEOPTA TACTICAL RIFLESCOPES

Meopta riflescope **ZD 1,8x22** is designed for use with 30mm caliber grenade launchers. Featuring tactical target turrets for windage and elevation adjustments, the 1,8x22 scope is fully shockproof and designed for the harshest conditions. Intensive testing and innovative design allow the user to achieve accurate target acquisition up to 800 meters even under the most adverse light conditions.

Meopta **ZD 2-8x42** is a classic riflescope designed for a wide variety of applications including assault rifles. Ideal for sniper rifles utilizing 5,56 NATO ammunition, the ZD 2-8x42 enables the operator to reach out to long distances knowing they have one of the most precise scopes on the market. Covered ballistic target turrets and Mil Dot reticle is the standard for this scope, providing quick ballistic compensation and renowned accuracy. Finally, low-light illumination of the reticle center enables the operator to maintain target acquisition under the most adverse light conditions.



ZD 2-8x42 on M4



MEOPTA TACTICAL BINOCULARS

Meopta Tactical Binoculars are designed and built to satisfy the most demanding observers. These binoculars offer superior light transmission (90%), accurate color rendition, crisp edge to edge image clarity and a large field of view. The binoculars are suitable for observing close or long distance terrain and for other detailed target recognition under the adverse light conditions such as at night, backlight or dawn. The compact, waterproof and shockproof binoculars offer maximum output in the most difficult environments (rain, dust, fog, severe cold or heat). The variety of the offered magnifications and objective diameters allows the user to choose the best binocular for his or her particular needs. Laser protection and reticle are optional features of the Meopta tactical binoculars, as well as a variety of optional accessories such as filters or 2x magnifier enabling a binocular to convert into a spotting scope.



A soldier with BD 10x50

Excellent performance under the adverse light conditions
 Waterproof and resistant to all weather conditions
 Superior edge to edge image clarity
 Light transmission over 90%
 Large binoculars models range for optimal choice
 Improved grip and impact protection



BD 8x56



BD 8x32
BD 10x32



BD 7x42
BD 8x42
BD 10x42



BD 7x50
BD 10x50
BD 12x50

Technical specification	8x32	10x32	7x42	8x42	10x42	7x50	10x50	12x50	8x56
Magnification	8x	10x	7x	8x	10x	7x	10x	12x	8x
Optical lens diameter (mm)	32	32	42	42	42	50	50	50	56
Field of view (°)	7,9	6,3	7,84	7,84	6,3	7,21	6,3	5,24	6,35
Field of view (m/1000m)	138	110	137	137	110	126	110	91	111
Eye relief (mm)	min 15,4	min 15	min 20	min 17	min 15	min 22,5	min 17	min 14,8	min 21,5
Dioptric range of eyepiece (D)	min ±3	min ±3	min ±3	min ±3	min ±3	min ±3	min ±3	min ±3	min ±3
Minimum observing distance (m)	max 1,8	max 2	max 3	max 3	max 3	max 4	max 4	max 4	max 5
Weight (g)	598	600	890	897	877	987	1020	1020	1120

Meopta Spotting scopes are designed for all who need a compact, lightweight and waterproof instrument with the highest level of light transmission and definition for observing terrain and targets and for evaluating hits over long distances in all light conditions.

SP 75 HD (provided with apochromatic objectives) are designed and manufactured for the most demanding users. These scopes have been designed to reduce secondary color aberration and to assure brilliant crystal clear images under even the most difficult light conditions. They are ideally suited also for taking long distance photos.



SP 75 HD Straight

SP 75 HD Angled



Sniper Observer equipped with SP 75 Straight

Designed for long distance target recognition and surveillance
HD models equipped by supreme quality objective lenses
Suitable for taking long distance photos and digiscoping
Photoadapter and Digiscoping eyepiece available

Technical specification	SP 75 HD		SP 75 Standard		Eyepieces			
	Angled	Straight	Angled	Straight	30xWA	20-60x		
						min	max	
Objective Lens (mm)	75							
Objective Lens Focal Length (mm)	329						11	5,55
Field of View (°)					2,2	2,0	1,0	
Eye Relief (mm)					16,8	15,3	17	
Shortest Focusing Distance (m)	4,18	4,18	4,25	4,25				
Dioptric Correction (D)	± 3							
Tripod Thread	1/4-20							
Length w/o Eyepiece (mm)	351	350	365	365	76	90		
Weight w/o Eyepiece (g)	1206	1210	1170	1175	105	160		

The Meopta SP 82 HD spotter scope is a newly designed scope for High-Definition observing. The HD apochromatic wide aperture objective lens and a wide eyepiece together with hydrophobic coating of all the external optical surfaces makes the scope a real tactical instrument for target recognition, surveillance, long distance observing and impact evaluation in most difficult light, environmental and weather conditions.



Designed for HD observing and surveillance
Exceptional light transmission
Suitable for use in the adverse light conditions
Hydrophobic coating for most difficult weather and environmental conditions

SP 82 HD Angled

Technical specification	SP 82 HD		Eyepieces			
	Angled	Straight	30-60xWA		20-70x	
			min	max	min	max
Objective Lens (mm)	82					
Objective Lens Focal Length (mm)	439		14,6	7,3	21,8	6,3
Field of View (°)			2,6	1,2	2,4	1,0
Eye Relief (mm)			18	18	18	18
Shortest Focusing Distance (m)	4,1	4,15				
Dioptric Correction (D)	± 3					
Tripod Thread	1/4-20					
Length w/o Eyepiece (mm)	340	326	116		118	
Weight w/o Eyepiece (g)	1430	1454	345		337	

The **Meopta Photoadapter H 75** is designed for using the SP 75/ SP 75 HD with single lens reflex (SLR) cameras.

The Photoadapter transforms your SP 75/ SP 75 HD into an 800mm telephoto lens. Thanks to the T-ring used for connecting the Photoadapter to camera's body the solution is compatible with most SLR a DSLR cameras.

Converts your Spotting scope into a powerful digiscoping tool
Compatible with most SLR and DSLR cameras
Brilliant crystal clear image thanks to the apochromatic objective lens in HD models
Ideally suited for most difficult light conditions and long distance photos

Technical specification	SP 75/ SP HD 75 with photoadapter
Focal length	800 mm
F-number	11,1
Camera attachment	Ring T2
Photoadapter length	167 mm
Photoadapter weight	180 g





ZN 4 LYNX

The Night Vision Sight Meopta ZN 4 LYNX is a brand new concept, designed for night conditions use on assault rifles, precise and machine guns. For the light intensification the XD-4 or XR5 IIT is used. The LYNX is equipped by an interface for a red dot sight, an additional picatinny rail for any kind of accessories, objective protective cap, eyepiece smart protection and a multi-purpose quick-release interface for various weapons integration. Objective cap includes the density filter for sight's zeroing and sight's functionality testing at day-time conditions. The eyepiece smart cap is opened only when operator's eye pushed on eyepiece removing so the denouncing effects. The smart cap protects the eyepiece's optical surface from dirtiness and dust as well.

Suitable for assault rifles
and machine guns
1 AA Battery > 50 hours
Robust and compact
construction
Magnification 4x



ZN 4 LYNX on
a FN - Minimi
Machine gun

Technical specification	ZN 4 LYNX
Magnification	4x
Field of View	10°
IIT Type	18 mm (XD-4, XR5)
Objective lens diameter	68 mm
Eye relief	35 mm
Dioptric correction of the eyepiece	-5 to + 3 D
Objective focusing distance	50 m to infinity
Human recognition	500 m at 3 mlx
Reticule	illuminated, variable intensity
External optical surfaces	Anti-rain Coating
Rectification range	± 30 MOA vertical and horizontal
Rectification step	0,5 MOA
Working temperature range	-40°C to + 55°C
Storage temperature range	-45°C to + 71°C
Shock resistance	500 G
Water/hermetic resistance	2m / 2hours
Humidity resistance	95%
Weight (with mount and battery)	1,1 kg
Dimensions (LxHxW)	250 x 110 x 85 mm
Power source	1x battery AA, 1,2 to 3,6V
Battery status indication	YES, reticule blinking
Battery life	1,5V – 50hours/20°C , 3,6V – 100hours/20°C
Automatic switch off	YES
Reticule intensity control	YES



ZN 6x on AMT DSR sniper rifle

The Night-Vision Sight Meopta ZN 6x is designed for aiming of large caliber firearms such as 12.7 mm sniper rifles or machine guns.

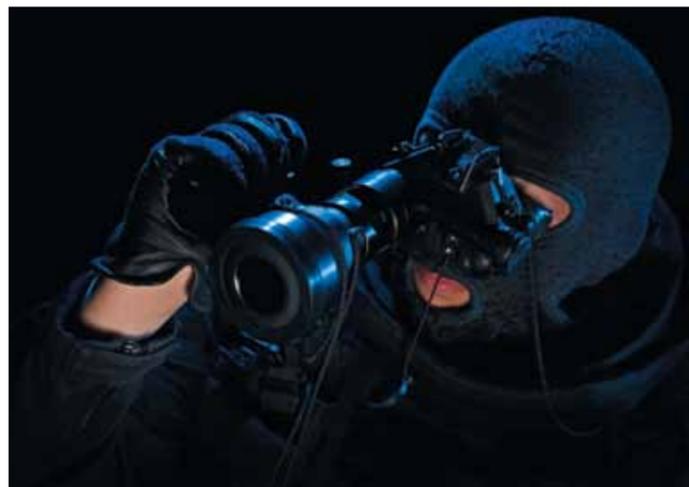
- Effective range up to 1000 m
- Adjustable intensity of the reticle brightness
- Vertical and horizontal reticle adjustment capability
- High resistance to extreme climatic conditions
- Resistant to big calibers recoil

Suitable for big caliber sniper rifles
and machine guns
Robust and big recoil
resistant construction
2 AA Batteries > 50 hours
Magnification 6 x



ZN 6x

Technical specification	ZN 6x
Magnification	6x
Field of view	5,5°
Image Intensifier Tube (Type /Generation)	18 mm XD-4 / eq. Gen III; optional XR5 / eq. Gen IV
Image Intensifier Tube resolution	XD-4 64 lpmm / XR-5 72 lpmm
Adjustment range	± 108'
Dioptric adjustment	± 3 dioptries
Eye relief	35 mm
Special functions	Adjustable illumination of the reticle, neutral filter for high light conditions
Weight/ Dimensions	3,3 kg / 135 x 140 x 250 mm
Operating Temperature	-35°C to 50°C
Power supply Autonomy	2 x battery AA (alk. or lithium) > 50 hours (type LR6)

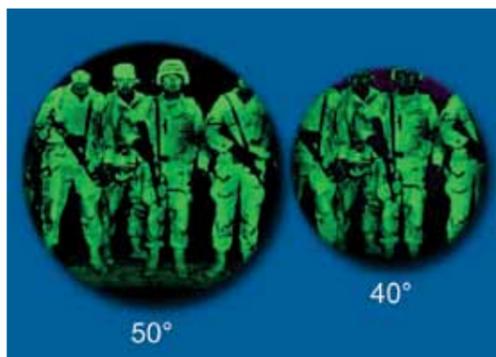


KLARA Night Vision Goggles is a basic night vision device for individuals. It offers a very clear image and extremely large field of view. Can be used either headmounted or handheld.

KLARA with affocal attachment – using an affocal attachment the device works as a powerful 4x magnification binocular scope

Field of view 50°
1 AA Battery > 20 hours
Versatile, Lightweight < 450 g
In service in numerous Armies

Klara with 4x affocal attachment



KLARA sees 60% more than most of the night-vision goggles



4x magnification affocal attachment



KLARA

Technical specification	KLARA	KLARA with affocal
Magnification	1x	4x
Field of view	50°	> 10°
Image Intensifier Tube (type /Generation)	18 mm XD-4 / eq. Gen III; optional XR5 / eq. Gen IV	
Image Intensifier Tube resolution	XD-4 64 lpmm / XR-5 72 lpmm	
Resolution	3 MOA	
Adjustable focus	20 cm to infinity	15 cm to infinity
Diopter adjustment	-5 to +2 dioptries	
Interpupillary distance	54 to 74 mm	
Special functions	Highlight protection, Low battery warning, IR lighting	
Weight/ Dimensions	445 g / 140x95x140 mm	
Operating Temperature	-30°C up to +50°C	
Power supply Autonomy	1x AA (alkaline or lithium), 1,2 up to 3.6 V, 20 hours	

monoKLARA Night-Vision Monocular Sight is a basic night vision device for individuals.

Provided with an optional aiming reticle monoKLARA may be used:

- mounted on headset or helmet
- mounted on any type of light arm or Assault rifle (AK-47, AKM, ...), SLR, LAW (Light Anti-Armor Weapons), ...
- as handheld
- when equipped by Affocal attachment as 4x magnification monocular scope

Extremely large field of view
1 AA Battery > 20 hours
Versatile, Lightweight < 380 g
In service in numerous Armies



monoKLARA on a head-set



monoKLARA



Helmet mount for KLARA

Technical specification	monoKLARA	monoKLARA with affocal
Magnification	1x	4x
Field of view	50°	> 10°
Image Intensifier Tube (Type /Generation)	18 mm XD-4 / eq. Gen III; optional XR5 / eq. Gen IV	
Resolution	3 MOA	
Adjustable focus	20 cm to infinity	15 cm to infinity
Diopter adjustment	-5 to +2 dioptries	
Special functions	Highlight protection, Low battery warning, IR lighting, Adjustable reticle brightness	
Weight/ Dimensions	400 g / 140 x 95 x 90 mm	
Operating Temperature	-30°C up to +50°C	
Power supply Autonomy	1x AA (alkaline or lithium), 1,2 up to 3.6 V, 20 hours	



Meopta Periscopes in 360° panoramic arrangement in M1A2 Abrams tank (U.S.Army)

Meopta Periscopes

- Made from high quality optical glass
- Excellent light transmission allowing using at day, dawn and night
- Large field of view
- Interchangeability thanks to the commonly used interface



Combined Day/Night Driver's Scope CDND-1

Combined Day/Night Driver's Scope CDND-1

- A combined device for any armored vehicle that can be used as both a day and night scope.
- High visibility and comfort both day and night without having to change devices.
- The Day Channel
 - Comprised of two unique optical glass prisms
 - Affords a remarkable 90 degrees horizontal and 45 degrees vertical field of view
 - Features stereoscopic imaging and shows the distance to the object
- The Night Channel
 - A biocular system which offers excellent viewing of the object without hindering the view of other displays in the vehicle
 - Based on XD-4 image intensifier tube with integrated Auto-gating function and gain control
 - Remarkable field of view: 45° degrees horizontal and 25° vertical
 - Can be used in low-illumination (as low as 3×10^{-3} lux) conditions
- Optimized anti-laser protection using filtering 800, 900, 1064 and 1540 nm wavelengths.
- All external glass surfaces electrically heated preventing misting and fogging under adverse conditions either inside or outside the vehicle
- Electrical focusing function
- 1x magnification
- Watertight construction



Stereoscopic Periscope M-27 MEO



Steyr Pandur II 8x8

Technical specification		M-27 MEO
Field of view	Horizontal	120°
	Vertical	38° (27°up, 11°down)
Resolution		< 14"
Integral transmission	Day	75%
	Dawn	70%
Antilaser filter	800 nm, 905 nm, 1064 nm, 1540 nm; Optical density 3	
Dimensions (l x h x w / mm)	273 x 243 x 91	
Weight	7,1 kg	

Technical specification	CDND-1
Magnification (Day Channel/Night Channel)	1x/ 1x
Field of view (Day Channel/Night Channel)	90° x 45°/ 45° x 25°
Resolution (Day Channel/Night Channel)	max. 40" / max. 4 MOA
Image Intensifier Tube (Type /Generation)	XD-4/ eq.gen. III (64 lpmm)
Night Channel Biocular exit pupil	70 mm
Power supply	24V ± 4V
Operating Temperature Range	-33°C to 63°C
Dimensions (l x h x w / mm)	(365x236x194)
Weight	18 kg



NV-3P in a modernized T-72 (outview)



NV-3P in a modernized T-72 (inside view)

NV-3P Stereoscopic Night Vision Driver's System for T-72

- Night vision driver's scope for tanks and other armored vehicles
- Enables driving at night under residual natural illumination conditions as low as 3×10^{-3} lux without additional lighting
- Additional IR lighting option for full darkness conditions
- Periscopic dual optical system using 2 image intensifiers enabling stereoscopic view of the observed terrain and estimation of distance
- Does not tire the eyes of the driver
- Interchangeable with the day-vision periscope without need of vehicle modification
- Night Channel based on XR5 (eq. Gen. IV) or XD-4 (eq. Gen. III) image intensifier tube equipped with Auto-gating feature
- Large field of view: 35° horizontal and 33° vertical
- All external glass surfaces effectively protected from fogging condensation and ice formation using electronically controlled surface heating
- 1x magnification
- Watertight device construction



TKN-3



T-72



NV-3P

TKN-3 Combined Day/Night Commander's System for T-72

- Fully passive – without using infra searchlights
- Night channel effective range up to 800 m
- Interchangeable without a necessity of any vehicle modification

Technical specification	TKN-3P	NV-3P
Magnification	4,75x/ 3,75x	1x
Field of view (Day Channel/Night Channel)	9,5°/ 10,5°	35° x 33°
Resolution (Day Channel/Night Channel)	max. 12" / max. 1 MOA	max. 12" / max. 2,6 MOA
Image Intensifier Tube (Type /Generation)	XR5/ eq. Gen. IV; XD-4/ eq. Gen. III	XR5/ eq. Gen. IV; XD-4/ eq. Gen. III
Image Intensifier Tube resolution	XD-4 64 lpmm / XR-5 72 lpmm	XD-4 64 lpmm / XR-5 72 lpmm
Power supply	26V ± 4V	15V.....31V
Operating Temperature Range	-30°C to 50°C	-30°C to 50°C
Dimensions (l x h x w / mm)	205x370x422	350x180x270
Weight	12 kg	5,3 kg



TKN-3BP in a modernized BMP-2

BPK-3 Combined Day/Night Gunner's System for BMP-2 (BMP-1)

- Reticules for various types of ammunitions
- Effective protection against a high level illumination
- Night channel effective range up to 1000 m



DND-5F in a modernized BMP-2

DND-5, DND-5F Combined Day/Night Driver's Systems for BMP-2 (BMP-1)

- A combined device suitable for any armored vehicle that can be used as both a day and a night driverscope
- High visibility and comfort both day and night without having to change devices
- Interchangeable with the older BMP-1 or BMP-2 devices without need of any vehicle modification
- The Day Channel
 - Comprises of two unique optical glass prisms
 - Affords 80° horizontal and 27° vertical field of view.
 - Features stereoscopic imaging and allows estimation of the object distance
 - Optimized anti-laser protection using filtering 800, 900, 1064 and 1540 nm wavelengths
- The Night Channel
 - A biocular system which offers excellent viewing of the object without hindering the view of other displays in the vehicle
 - based on DEP II super gen. Micro channel image intensifier tube with integrated auto-gating function and gain control
 - Can be used in low-illumination (as low as 3×10^{-3} lux) conditions.
 - Remarkable field of view: 45° horizontal and 25° vertical
- All external glass surfaces of both channels are electro-heated preventing misting and fogging under adverse conditions either inside or outside the vehicle
- Electrical focusing functions
- 1x magnification
- Watertight construction



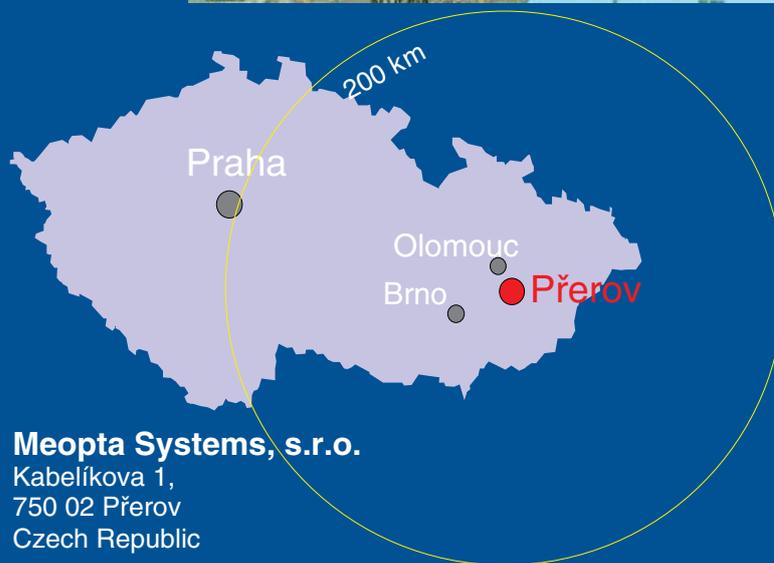
BMP-2



TKN-3BP Combined Day/Night Commander's System for BMP-2 (BMP-1)

- Fully passive – without using infra searchlights
- Night channel effective range up to 800 m
- Interchangeable without a necessity of any vehicle modification

Technical specification	TKN-3BP	BPK-3	DND-5
Magnification (Day Channel/Night Channel)	4,75x/ 3,75x	6x/ 5,5x	1x/ 1x
Field of view (Day Channel/Night Channel)	9,5°/ 10,5°	10°/ 6°4'	80°x 27°/ 45°x 28°
Resolution (Day Channel/Night Channel)	max. 12" / max. 1 MOA	max. 11" / max. 0,6 MOA	max. 40" / max. 4 MOA
Image Intensifier Tube (Type /Generation)	XD-4/ eq. gen III XR5/ eq. gen. IV	XD-4/ eq. gen III XR5/ eq. gen. IV	DEP II Super Gen.
Image Intensifier Tube resolution	XD-4 64 lpmm / XR-5 72 lpmm	XD-4 64 lpmm / XR-5 72 lpmm	
Power supply	26V ± 4V	26V ± 4V	24V ± 4V
Operating Temperature Range	-30°C to 50°C	-40°C to 50°C	-31°C to 52°C
Dimensions (l x h x w / mm)	205x370x422	355x458x308	315x159x182
Weight	12 kg	20 kg	6,5 kg



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